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# U.S. DEPARTMENT OF AGRICULTURE

# 1995 BUDGET EXPLANATORY NOTES FOR COMMITTEE ON APPROPRIATIONS

# VOLUME 1

ADMINISTRATION

RESEARCH, EDUCATION & ECONOMICS

MARKETING & INSPECTION

SOIL CONSERVATION SERVICE

Project Statements

The obligations shown in the Project Statements are based on the appropriations and activities proposed in the 1995 budget estimates. In some Project Statements the activities are further divided into subcategories, reflecting a more detailed description of the work conducted under the appropriation items.

In those accounts where prior year balances are also available for obligation during the year, such amounts are shown in a separate Project Statement.

The amounts shown in Project Statements for the past year are taken directly from the accounting records to the maximum extent possible. Where the Department has adjusted obligations after Treasury has closed the books for the year, we have shown our most current estimate. These adjustments will be picked up by Treasury in subsequent reports.

Statement of Available Funds and Staff-Years

A statement is included for each agency, immediately following the introductory purpose statement, to reflect all sources of funds available to the agency and to show the staff-years related to each source of funds.

These statements reflect the best available information at the time these Explanatory Notes were prepared February 1994. However, it is not possible in many instances to determine in advance the extent to which agencies may be requested to perform additional services for other Federal and non-Federal agencies or organizations.Therefore, amounts of actual reimbursements and other funds received from sources other than appropriations directly to the agency may vary from those shown in the statements.

In those cases where the funds are not appropriated (reimbursements, trust funds, transfers, revolving funds, etc.), the dollar amounts shown represent actual or estimated Obligations for the year.

In some instances there may be duplication of amounts shown. This results largely from cases involving reimbursements between different agencies within the Department and where amounts are paid from appropriations to the Working Capital Fund. There is no duplication of the staff-years shown.

Classification by Objects

A statement is included for each agency showing total obligations by Object Classification for the agency. Obligations for personnel compensation are also broken between headquarters and field.

Loan Levels

Knowledge of the following basic budget terminology will assist the reader in understanding the budget proposals.

"Direct" loans involve the Federal government disbursing the money to the borrower and receiving the money back from the borrower in regular installments in future years. The Federal agency having responsibility for administering the credit program must counsel prospective borrowers on eligibility criteria and application procedures, evaluate applicant's eligibility and ability to repay, perform the administrative procedures to process the application, make and record the loan payment, receive and record the receipts for repayment, calculate the interest and remaining balance status, monitor the regularity of payments, follow up on delinquent status, and, where necessary, institute legal action to eliminate or minimize the loss to the Federal government in the event of the borrower's default on the loan.

For international trade "Credit Sales", the same basic process is involved except that the disbursement of the cash loan is replaced by the disbursement of cash to purchase and ship the commodities being exported to the foreign country involved.

Loan "Guarantees" involves the Federal government actually guaranteeing a private lending institution that a stipulated portion of a borrower's loan will be repaid. The Federal government does not disburse or receive funds involved in the loan and repayment between the lending institution and the borrower. If the borrower defaults on the loan, the Federal government would have to disburse to the lending institution the portion of the borrower's unpaid balance representing the amount of the Federal guarantee. The Federal agency having responsibility for administering the credit program must counsel prospective borrowers on eligibility criteria and application procedures, evaluate applicant's eligibility and ability to pay, counsel and assist the borrower in arranging the loan with the lending institution, perform administrative procedures necessary to record the loan guarantee transaction, maintain liaison with the lending institutions to keep informed of the status of loan repayments, follow up on seriously delinquent status, and, where necessary, institute legal action to eliminate or minimize the loss of the Federal government in the event of the borrower's default on the loan. The Rural Electrification Administration (REA), however, guarantees loans made by the Federal Financing Bank. Because REA is guaranteeing loans made by another Federal agency, the transaction more closely resembles a direct loan.

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# OFFICE OF THE SECRETARY

## Purpose Statement

The Secretary of Agriculture, assisted by the Deputy Secretary, Chief Financial Officer, Under Secretaries and Assistant Secretaries, and members of their immediate staffs, directs and coordinates the work of the Department. This involves providing policy direction for all areas of the Department's responsibilities including research; educational and regulatory activities; nutrition, conservation and farm programs; and forestry and international agriculture. It also involves maintaining relationships with organizations and others in the development of programs, and maintaining liaison with the Executive Office of the President and members of Congress on all matters pertaining to Departmental policy.

The Board of Contract Appeals is a reimbursable activity in the Office of the Secretary. It is the authorized representative of the Secretary of Agriculture to make final administrative determinations for the Department of Agriculture in appeals handled under the Secretary's regulations.

The general authority of the Secretary to supervise and control the work of the Department is contained in the Organic Act (7 U.S.C. 2201-2202). The delegation of regulatory functions to the Department employees and authorization of appropriations to carry out these functions are contained in 7 U.S.C. 450c-450g.

The Secretary's staffs financed from this appropriation are located in Washington, D. C. As of September 30, 1993, there were 85 employees. Of this total, 78 were full-time permanent employees and 7 were other than full-time permanent employees.

# OFFICE OF THE SECRETARY

## Available Funds and Staff-Years

## 1993 Actual and Estimated 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Direct Appropriations: | $9,309,000 | 70 | $10,062,000 | 92 | $10,184,000 | 92 |
| Obligations Under Other USDA/Appropriations: | | | | | | |
| Board of Contract Appeals . . . | 1,218,000 | 10 | 1,215,000 | 10 | 1,260,000 | 10 |
| Foreign Agricultural Service . . | 77,000 | -- | -- | -- | -- | -- |
| Forest Service . . . . . | -- | -- | 79,000 | 1 | -- | -- |
| Liaison with Army War College. | -- | -- | 138,000 | -- | 146,000 | -- |
| Total,Other USDA Appropriations | 1,295,000 | 10 | 1,432,000 | 11 | 1,406,000 | 10 |
| Total, Agriculture Appropriations | 10,604,000 | 80 | 11,494,000 | 103 | 11,590,000 | 102 |
| Total, Office of the Secretary. . | 10,604,000 | 80 | 11,494,000 | 103 | 11,590,000 | 102 |

OFFICE OF THE SECRETARY

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | 1993 Headquarters | 1994 Headquarters | 1995 Headquarters |
|---|---|---|---|
| Executive Level I | 1 | 1 | 1 |
| Executive Level II | 1 | 1 | 1 |
| Executive Level III | 2 | 2 | 2 |
| Executive Level IV | 7 | 7 | 7 |
| ES-6 | 7 | 9 | 13 |
| ES-5 | 3 | 5 | 2 |
| ES-4 | 1 | 1 | 1 |
| ES-3 | 2 | 2 | 4 |
| ES-2 | 4 | 5 | 3 |
| ES-1 | 3 | 3 | 2 |
| CA-1 | 1 | 1 | 1 |
| CA-2 | 1 | 1 | 1 |
| CA-3 | 3 | 3 | 3 |
| GS/GM-15 | 14 | 15 | 20 |
| GS/GM-14 | 7 | 7 | 3 |
| GS/GM-13 | 5 | 3 | 2 |
| GS-12 | 6 | 4 | 3 |
| GS-11 | 9 | 12 | 16 |
| GS-10 | 7 | 10 | 8 |
| GS-9 | 4 | 3 | 5 |
| GS-8 | 4 | 4 | 0 |
| GS-7 | 1 | 1 | 1 |
| Ungraded Positions | 3 | 3 | 3 |
| Total Permanent Positions | 96 | 103 | 102 |
| Unfilled Positions end-of-year | -20 | -- | -- |
| Total, Permanent Employment, end-of-year | 76 | 103 | 102 |
| Staff-Years: Ceiling | 80 | 103 | 102 |

OFFICE OF THE SECRETARY

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| Personal Compensation: | | 1993 | 1994 | 1995 |
|---|---|---|---|---|
| Headquarters | | $5,528,341 | $6,891,000 | $6,957,000 |
| 11 | Total personnel compensation | 5,528,341 | 6,891,000 | 6,957,000 |
| 12 | Personnel Benefits | 1,011,393 | 1,332,000 | 1,348,000 |
| 13 | Benefits for former personnel | 4,439 | 16,000 | 16,000 |
| Total pers. comp. & benefits | | 6,544,173 | 8,239,000 | 8,321,000 |
| Other Objects: | | | | |
| 21 | Travel | 319,209 | 364,000 | 375,000 |
| 22 | Transportation of things | 20,325 | 1,000 | 1,000 |
| 23.3 | Communications, utilities, and miscellaneous charges | 416,844 | 469,000 | 487,000 |
| 24 | Printing | 285,478 | 226,000 | 246,000 |
| 25 | Other services | 489,637 | 489,000 | 527,000 |
| 26 | Supplies and materials | 111,676 | 179,000 | 198,000 |
| 31 | Equipment | 269,963 | 95,000 | 29,000 |
| Total other objects | | 1,913,132 | 1,823,000 | 1,863,000 |
| Total direct obligations | | 8,457,305 | 10,062,000 | 10,184,000 |
| Position Data: | | | | |
| Average Salary, ES positions | | $106,225 | $110,473 | $113,411 |
| Average Salary, GM/GS positions | | $47,274 | $49,053 | $55,043 |
| Average Grade, GM/GS positions | | 12.09 | 12.00 | 12.27 |

OFFICE OF THE SECRETARY

The estimate includes appropriation language for this item as follows: (new language underscored; deleted matter enclosed in brackets):

Office of the Secretary

For necessary expenses of the Office of the Secretary of Agriculture, and not to exceed [$50,000] $75,000 for employment under 5 U.S.C. 3109, [$2,308,000] $10,184,000: Provided, That not to exceed [$8,000] $11,000 of this amount shall be available for official reception and representation expenses, not otherwise provided for, as determined by the Secretary: Provided further, That the Secretary may transfer salaries and expenses funds in this Act sufficient to finance a total of not to exceed 35 staff years between agencies of the Department of Agriculture to meet workload requirements.

[Office of the Deputy Secretary]

[For necessary expenses of the Office of the Deputy Secretary of Agriculture, including not to exceed $25,000 for employment under 5 U.S.C. 3109, $550,000: Provided, That not to exceed $3,000 of this amount shall be available for official reception and representation expenses, not otherwise provided for, as determined by the Deputy Secretary.]

[Office of the Assistant Secretary for Administration]

[For necessary expenses of the Office of the Assistant Secretary for Administration to carry out the programs funded in this Act, $803,000.]

[Office of the Assistant Secretary for Congressional Relations]

[For necessary expenses of the Office of the Assistant Secretary for Congressional Relations to carry out the programs funded in this Act, $1,325,000.]

[Office of the Assistant Secretary for Economics]

[For necessary expenses of the Office of the Assistant Secretary for Economics to carry out the programs funded in this Act, $586,000.]

[Office of the Assistant Secretary for Science and Education]

[For necessary salaries and expenses of the Office of the Assistant Secretary for Science and Education to administer the laws enacted by the Congress for the Agricultural Research Service, Cooperative State Research Service, Extension Service, and National Agricultural Library, $566,000.]

[Office of the Assistant Secretary for Marketing and Inspection Services]

[For necessary salaries and expenses of the Office of the Assistant Secretary for Marketing and Inspection Services to administer programs under the laws enacted by the Congress for the Animal and Plant Health Inspection Service, Food Safety and Inspection Service, Federal Grain Inspection Service, Agricultural Marketing Service, and Packers and Stockyards Administration, $687,000.]

[Office of the Under Secretary for International Affairs and Commodity Programs]

[For necessary salaries and expenses of the Office of the Under Secretary for International Affairs and Commodity Programs to administer the laws enacted by Congress for the Agricultural Stabilization and Conservation Service, Foreign Agricultural Service, and the Commodity Credit Corporation, $560,000.]

[Office of the Assistant Secretary for Natural Resources and Environment]

[For necessary salaries and expenses of the Office of the Assistant Secretary for Natural Resources and Environment to administer the laws enacted by the Congress for the Forest Service and the Soil Conservation Service, $575,000.]

[Office of the Under Secretary for Small Community and Rural Development]

[For necessary salaries and expenses of the Office of the Under Secretary for Small Community and Rural Development to administer programs under the laws enacted by the Congress for the Farmers Home Administration, Rural Electrification Administration, Federal Crop Insurance Corporation, and rural development activities of the Department of Agriculture, $580,000.]

[Office of the Assistant Secretary for Food and Consumer Services]

[For necessary salaries and expenses of the Office of the Assistant Secretary for Food and Consumer Services to administer the laws enacted by the Congress for the Food and Nutrition Service, $551,000.]

This change merges amounts appropriated to the Deputy Secretary and to Under and Assistant Secretaries with amounts appropriated to the Secretary of Agriculture for the operation of the offices within the Office of the Secretary to reestablish a single appropriation for that Office.

The fiscal year 1995 budget proposes to reestablish a single appropriation for these activities. The multiple accounts unduly restrict the discretion of the Secretary to organize the resources to carry out the Department's program in the most cost effective manner. The Secretary is charged with the responsibility for implementing national agriculture policies enacted by the Congress. The Secretary has discussed his plan to reorganize the Department with the Congress. A single account will facilitate the implementation of a reorganization. The establishment of multiple appropriations limits his ability to establish priorities and shift resources necessary to meet the challenging conditions of America's agriculture.

## OFFICE OF THE SECRETARY

| | |
|---|---|
| Appropriations Act, 1994 | $9,091,000 |
| Budget Estimate, 1995 | 10,184,000 |
| Increase in Appropriation | +1,093,000 |

| | | |
|---|---|---|
| Adjustments in 1994: | | |
| Appropriations Act, 1994 | $9,091,000 | |
| Activities transferred from USDA Agencies a/ | +496,000 | |
| Functions transferred from Office of Communications b/ | +475,000 | |
| Adjusted base for 1995 | | 10,062,000 |
| Budget Estimate,1995 | | 10,184.000 |
| Increased over adjusted 1994 | | +122,000 |

a/ Pursuant to the authority given to the Secretary in the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 1993 (P.L. 103-111) to transfer staff years and funding within USDA to meet workload requirements, 3 staff years and $380,000 were transferred to the Chief Financial Officer and 1 staff year and $116,000 were transferred to the Assistant Secretary for Natural Resources and Environment.

b/ Pursuant to the authority given to the Secretary in Reorganization Plan No. 2 of 1953, functions of the Office of Intergovernmental Affairs were transferred from the Office of Communications to the Office of the Assistant Secretary for Congressional Relations.

SUMMARY OF INCREASES AND DECREASES
(on basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Immediate Office of the Secretary | $2,308,000 | +$18,000 | +$11,000 | $2,337,000 |
| Office of the Deputy Secretary | 550,000 | +4,000 | +3,000 | 557,000 |
| Chief Financial Officer | 575,000 | +4,000 | +1,000 | 580,000 |
| Assistant Secretary for Administration | 608,000 | +6,000 | +3,000 | 617,000 |
| Assistant Secretary for Congressional Relations | 1,800,000 | +17,000 | +4,000 | 1,821,000 |
| Assistant Secretary for Economics | 586,000 | +4,000 | +3,000 | 593,000 |
| Assistant Secretary for Science and Education | 566,000 | +5,000 | +3,000 | 574,000 |
| Assistant Secretary for Marketing and Inspection Service | 687,000 | +6,000 | +2,000 | 695,000 |
| Under Secretary for International Affairs and Commodity Programs | 560,000 | +5,000 | +3,000 | 568,000 |
| Assistant Secretary for Natural Resources and Environment | 691,000 | +4,000 | +3,000 | 698,000 |
| Under Secretary for Small Community and Rural Development | 580,000 | +5,000 | +1,000 | 586,000 |
| Assistant Secretary for Food and Consumer Services | 551,000 | +4,000 | +3,000 | 558,000 |
| Total Available | 10,062,000 | +82,000 | +40,000 | +10,184,000 |

PROJECT STATEMENT
(on basis of adjusted appropriation)

| Item of Change | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 1. Secretary . . | $2,216,173 | 19 | $2,308,000 | 21 | +$29,000 | $2,337,000 | 21 |
| 2. Deputy Secretary . . | 500,824 | 4 | 550,000 | 5 | +7,000 | 557,000 | 5 |
| 3. Chief Financial Officer . . . | 182,012 | 2 | 575,000 | 5 | +5,000 | 580,000 | 5 |
| 4. Under/Asst Secretaries . | | | | | | | |
| ADM. . . . . | 559,413 | 5 | 608,000 | 5 | +9,000 | 617,000 | 5 |
| CR/IG . . . . | 1,547,116 | 17 | 1,800,000 | 20 | +21,000 | 1,821,000 | 20 |
| ECON . . . . | 436,017 | 2 | 586,000 | 5 | +7,000 | 593,000 | 5 |
| S/E . . . . . | 531,689 | 2 | 566,000 | 5 | +8,000 | 574,000 | 5 |
| MIS . . . . . | 452,271 | 5 | 687,000 | 5 | +8,000 | 695,000 | 5 |
| IACP. . . . . | 488,632 | 3 | 560,000 | 5 | +8,000 | 568,000 | 5 |
| NRE . . . . . | 534,890 | 3 | 691,000 | 6 | +7,000 | 698,000 | 6 |
| ACRD . . . . | 470,444 | 3 | 580,000 | 5 | +6,000 | 586,000 | 5 |
| FCS . . . . . | 537,824 | 5 | 551,000 | 5 | +7,000 | 558,000 | 5 |
| Unobligated Balance . . . | 851,695 | - - | - - | - - | - - | - - | - - |
| Total available or estimate. . . | 9,309,000 | 70 | 10,062,000 | 92 | +122,000(1) | 10,184,000 | 92 |
| Transfer from USDA agencies to CFO . . . | -195,000 | -3 | -380,000 | -3 | | | |
| Transfer from USDA agencies to NRE. . . . | - - | - - | -116,000 | -1 | | | |
| Transfer from OC | -468,000 | -5 | -475,000 | -6 | | | |
| Total,Appropriation | 8,646,000 | 62 | 9,091,000 | 82 | | | |

Explanation of Program

The Office of the Secretary, Deputy Secretary, Chief Financial Officer, Under Secretaries, Assistant Secretaries, and their immediate staff, provide policy and guidance for the Department and maintain relationships with agricultural organizations and others in the development of farm programs.

The Office of the Secretary also oversees special projects that are conducted at the behest of the Congress. These projects include short-term studies, investigations, and research on matters affecting agriculture or the agricultural community. Usually, specific appropriations are provided to carry out these projects. Projects results are reported to the appropriate Congressional committees.

Explanation of the Proposed Reorganization: The duties and responsibilities of the Chief Financial Officer and the Assistant Secretary for Economics as well as staffing and related funding will be reassigned from the Office of the Secretary to the Office of Executive Operations under the reorganization plan proposed by the Secretary. The plan also proposes to reassign 5 staff years and related funding from the Office of Communications to the Office of the Secretary to establish an Office of the Assistant Secretary for Communications.

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A net increase of $122,000 consisting of:

(a) A decrease of $36,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $36,000.

Nature of Change. In order to achieve this savings, OSEC will reduce discretionary expenses by $36,000 in FY 1995, in areas such as training, printing and reproduction costs and telephone usage.

(b) An increase of $82,000 for pay increases.

(c) An increase of $76,000 of which $45,000 reflects a 2.6 percent increase in non-salary costs, and $31,000 reflects Greenbook increases associated with communications and other services.

## GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Washington, D.C | $8,457,305 | 70 | $10,062,000 | 92 | $10,184,000 | 92 |
| Unobligated balance | 851,695 | -- | -- | -- | -- | -- |
| Total, Available or Estimate | 9,309,000 | 70 | 10,062,000 | 92 | 10,184,000 | 92 |

# DEPARTMENTAL ADMINISTRATION

## Purpose Statement

Departmental Administration is comprised of the Staff Offices that report to the Assistant Secretary for Administration. These Offices provide staff support to the top policy officials of the Department and overall direction and coordination to the work of the Department. The Assistant Secretary for Administration has the responsibility for administering the following programs under authority contained in 7 U.S.C. 2202:

Departmental Administration. This appropriation funds the policy development and administrative operational activities associated with Department wide programs for human resource management, financial management, management improvement, occupational safety and health management, real and personal property management, procurement, contracting, motor vehicle and aircraft management, supply management, ADP and telecommunications management, civil rights, equal opportunity, special emphasis, small and disadvantaged business opportunities, emergency preparedness, the regulatory hearings and administrative proceedings conducted by the Administrative Law Judges and the Judicial Officer, and the Info Share program, which is a customer-oriented method for USDA agencies to test, evaluate and acquire new technologies which will emphasize one-stop customer service and integrated data sharing.

Agriculture Buildings and Facilities. This account finances the appropriated portion of payments to the General Services Administration for rental of leased space and related services. Funding is not provided for payments to GSA made by the Forest Service, since the Forest Service is funded in the Interior and Related Agencies Appropriations Act.

This account also finances operations, repair, improvement, and maintenance activities at the USDA Headquarters Complex. Since 1989, when the GSA delegation expired, USDA has been responsible for managing, operating, maintaining, repairing, and improving the Headquarters Complex, which encompasses 1.41 acres of ground and 4 buildings containing approximately 3 million square feet of space occupied by approximately 8,000 employees.

Beginning in fiscal year 1995, this account also will finance the development of a strategic space plan to improve the delivery of USDA programs to the American people. To aid in streamlining USDA and improving the operation and effectiveness of USDA programs, a strategy for efficient re-allocation of space to house the restructured Headquarters agencies in modern, safe facilities has been proposed. Key elements of this plan include the construction of an office building on USDA-owned land in Beltsville, Maryland and the renovation of the Agriculture South Building.

Not all administrative Staff Office activities are financed from direct appropriations. The Staff Offices also provide central services that are financed through the Department's Working Capital Fund (7 U.S.C. 2235). A detailed description of these activities is provided in the Purpose Statement of the Working Capital Fund.

Reimbursable Activities. Under the Economy Act, 31 U.S.C. 686, the Staff Offices also are reimbursed for services provided to other USDA and other Federal agencies. The following activities are financed through these reimbursements: travel and printing for the Administrative Law Judges, miscellaneous personnel details, selected short-term activities, and administrative and operational support to Working Capital Fund entities.

Geographic Location. The majority of the employees in the Staff Offices are located in Washington, D.C. Central services financed through the Working Capital Fund are provided by the National Finance Center located in New Orleans, Louisiana and by the Department's computer centers located in Kansas City, Missouri and Fort Collins, Colorado, and by other administrative service units located in the Washington Metropolitan Area.

As of September 30, 1993, there were 2,494 employees, of which 2,406 were full-time and 88 were other than full-time permanent employees in the Staff Offices included under Departmental Administration. These employees were assigned as follows:

| Location | Full-time permanent | Other | Total |
|---|---|---|---|
| Washington, D.C. | 744 | 49 | 793 |
| Field units | 1,662 | 39 | 1,701 |
| Total | 2,406 | 88 | 2,494 |

DEPARTMENTAL ADMINISTRATION

Available Funds and Staff-Years

1993 and Estimated 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Direct Appropriations: | | | | | | |
| Departmental Administration | 36,938,739 | 390 | 54,811,000 | 416 | 118,307,000 | 430 |
| Ag. Buildings & Facililities | 75,632,916 | 86 | 135,148,993 | 87 | 138,803,000 | 84 |
| Total, Direct | 112,571,655 | 476 | 189,959,993 | 503 | 257,110,000 | 514 |
| Reimbursements to Appropriations: | | | | | | |
| Departmental Administration | | | | | | |
| **USDA Agencies:** | | | | | | |
| FmHA ADP | 107,340 | -- | 120,000 | -- | 123,000 | -- |
| IRM Services | 20,554 | -- | - | -- | -- | -- |
| EEO Investigations | 1,191,827 | -- | 2,800,000 | -- | 2,900,000 | -- |
| Interpreter Service | 36,648 | -- | 38,000 | -- | 39,000 | -- |
| SES Development | 971 | -- | -- | -- | -- | -- |
| Foreign Agricultural Service | 120,000 | -- | 123,000 | -- | 126,000 | -- |
| Data Management | 220,000 | -- | -- | -- | -- | -- |
| TARGET Center | 287,256 | 4 | 377,000 | 4 | 387,000 | 4 |
| Office of Admin. Law Judges | 35,564 | -- | 53,000 | -- | 54,000 | -- |
| Misc. Details | 56,023 | -- | -- | -- | -- | -- |
| Management Support Services Provided to WCF Activities | 4,822,511 | 71 | 5,046,000 | 71 | 5,223,000 | 71 |
| Subtotal USDA Agencies | 6,898,694 | 75 | 8,557,000 | 75 | 8,852,000 | 75 |
| **Other Federal Agencies** | | | | | | |
| Farm Credit Assistance Bd | 12,000 | -- | -- | -- | -- | -- |
| National Performance Review | 2,953 | -- | -- | -- | -- | -- |
| Subtotal Other Federal | 14,953 | -- | -- | -- | -- | -- |
| Total Deptl Administration | 6,913,647 | 75 | 8,557,000 | 75 | 8,852,000 | 75 |
| Ag. Building & Facilities: | | | | | | |
| Security Services | 1,722,224 | -- | 2,400,000 | -- | 2,500,000 | -- |
| Other Building Services | 737,343 | -- | 950,000 | -- | 1,000,000 | -- |
| Subtotal, Ag. Bldg. & Facil. | 2,459,567 | -- | 3,350,000 | -- | 3,500,000 | -- |
| Total, Reimbursements | 9,373,214 | 75 | 11,907,000 | 75 | 12,352,000 | 75 |
| Working Capital Fund: Supply and Other Central Services | 19,057,000 | 206 | 20,959,000 | 213 | 20,111,000 | 207 |
| OFM Finance Center | 106,498,000 | 1,535 | 117,061,000 | 1,506 | 117,478,000 | 1,451 |
| ADP Services | 40,969,000 | 202 | 44,612,000 | 215 | 47,445,000 | 214 |
| Purchase of Equipment | 11,473,000 | -- | 20,124,000 | --- | 20,545,000 | -- |
| Subtotal, Working Capital Fund | 177,997,000 | 1,943 | 202,756,000 | 1,934 | 205,579,000 | 1,872 |
| Grand Total, Departmental Administration | 299,941,869 | 2,494 | 404,622,993 | 2,512 | 475,041,000 | 2,461 |

DEPARTMENTAL ADMINISTRATION

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | 1993 | | | 1994 | | | 1995 | | |
|---|---|---|---|---|---|---|---|---|---|
| | HDQTRS | FIELD | TOTAL | HDQTRS | FIELD | TOTAL | HDQTRS | FIELD | TOTAL |
| ES-6 | 4 | -- | 4 | 4 | -- | 4 | 4 | -- | 4 |
| ES-5 | 4 | 2 | 6 | 3 | 2 | 5 | 4 | 2 | 6 |
| ES-4 | -- | -- | -- | 1 | -- | 1 | 1 | -- | 1 |
| ES-3 | -- | -- | -- | -- | 1 | 1 | 2 | 1 | 3 |
| ES-2 | 1 | 1 | 2 | 2 | 1 | 3 | 1 | 1 | 2 |
| ES-1 | 2 | 5 | 7 | 2 | 5 | 7 | 2 | 5 | 7 |
| AL-3 | 4 | -- | 4 | 5 | -- | 5 | 5 | -- | 5 |
| AL-2 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| SL-2 | -- | -- | -- | 1 | -- | 1 | 1 | -- | 1 |
| SL-1 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| GS/GM-15 | 44 | 12 | 56 | 42 | 16 | 58 | 40 | 16 | 56 |
| GS/GM-14 | 131 | 56 | 187 | 125 | 61 | 186 | 119 | 61 | 180 |
| GS/GM-13 | 135 | 117 | 252 | 131 | 124 | 255 | 141 | 117 | 258 |
| GS-12 | 70 | 251 | 321 | 65 | 256 | 321 | 68 | 247 | 315 |
| GS-11 | 64 | 235 | 299 | 53 | 235 | 288 | 47 | 227 | 274 |
| GS-10 | 4 | 12 | 16 | 2 | 12 | 14 | 2 | 12 | 14 |
| GS-9 | 40 | 126 | 166 | 38 | 126 | 164 | 38 | 123 | 161 |
| GS-8 | 8 | 37 | 45 | 11 | 37 | 48 | 11 | 37 | 48 |
| GS-7 | 88 | 168 | 256 | 89 | 167 | 256 | 89 | 164 | 253 |
| GS-6 | 34 | 165 | 199 | 34 | 165 | 199 | 35 | 160 | 195 |
| GS-5 | 32 | 283 | 315 | 37 | 281 | 318 | 37 | 270 | 307 |
| GS-4 | 47 | 100 | 147 | 54 | 103 | 157 | 54 | 98 | 152 |
| GS-3 | 20 | 86 | 106 | 20 | 87 | 107 | 21 | 84 | 105 |
| GS-2 | 11 | 3 | 14 | 11 | 3 | 14 | 11 | 3 | 14 |
| GS-1 | 5 | -- | 5 | 6 | -- | 6 | 6 | -- | 6 |
| Other Graded Positions | 63 | -- | 63 | 68 | -- | 68 | 67 | -- | 67 |
| Ungraded Positions | -- | 24 | 24 | -- | 24 | 24 | -- | 24 | 24 |
| Total Permanent Positions | 813 | 1,683 | 2,496 | 806 | 1,706 | 2,512 | 809 | 1,652 | 2,461 |
| Unfilled Positions end-of-year | -25 | -- | -25 | -- | -- | -- | -- | -- | -- |
| Total Permanent Employment end-of-year | 788 | 1,683 | 2,471 | 806 | 1,706 | 2,512 | 809 | 1,652 | 2,461 |
| Staff-Year Ceiling | 785 | 1,709 | 2,494 | 806 | 1,706 | 2,512 | 809 | 1,652 | 2,461 |

## CLASSIFICATION BY OBJECTS
## 1993 and Estimated 1994 and 1995

| | | 1993 | 1994 | 1995 |
|---|---|---|---|---|
| Personnel Compensation: | | | | |
| Headquarters | | $21,488,088 | $24,490,000 | $25,468,000 |
| 11 | Total personnel compensation | 18,643,142 | 20,848,000 | 21,661,000 |
| 12 | Personnel benefits | 2,837,924 | 3,633,000 | 3,794,000 |
| 13 | Benefits for former personnel | 7,022 | 9,000 | 13,000 |
| Total pers. comp. & benefits | | 21,488,088 | 24,490,000 | 25,468,000 |
| Other Objects: | | | | |
| 21 | Travel | 517,594 | 2,392,000 | 1,843,000 |
| 22 | Transportation of things | 7,938 | 16,000 | 16,000 |
| 23.2 | Rental payments to others | 9,310 | 90,000 | 30,000 |
| 23.3 | Communications, utiliities and miscellaneous charges | 805,963 | 2,002,000 | 26,464,000 |
| 24 | Printing and reproduction | 341,821 | 214,000 | 218,000 |
| 25.1 | Consulting services | 3,494,688 | 10,456,000 | 9,428,000 |
| 25.2 | Other services | 4,817,562 | 3,518,000 | 27,423,000 |
| 25.3 | Purchase of goods and services from other government accounts | 1,152,403 | -- | -- |
| 25.5 | Research and development contracts | 1,257 | -- | -- |
| 26 | Supplies and materials | 426,172 | 384,000 | 386,000 |
| 31 | Equipment | 3,183,326 | 11,249,000 | 27,031,000 |
| 32 | Land and Structures | 436,854 | -- | -- |
| Total other objects | | 15,194,888 | 30,321,000 | 92,839,000 |
| Total direct obligations | | 36,682,976 | 54,811,000 | 118,307,000 |
| Position Data: | | | | |
| Average Salary, ES positions | | $113,300 | $116,304 | $118,041 |
| Average Salary, GM/GS positions | | $48,909 | $53,735 | $54,594 |
| Average Grade, GM/GS positions | | 13.2 | 13.3 | 13.2 |

## DEPARTMENTAL ADMINISTRATION

The estimates include appropriation language for this item as follows (new language underscored, deleted matter enclosed in brackets):

Departmental Administration:

For Finance and Management, $5,280,000, for Personnel, [Finance and Management,] Operations, Information Resources Management, [Advocacy and Enterprise,] Civil Rights Enforcement, Small and Disadvantaged Business Utilization, Administrative Law Judges and Judicial Officer, and Emergency Programs, [$26,301,000] $23,027,000; making a total of $28,307,000 for Departmental Administration to provide for necessary expenses for management support services to offices of the Department [of Agriculture] and for general administration and emergency preparedness of the Department [of Agriculture], repairs and alterations, and other miscellaneous supplies and expenses not otherwise provided for and necessary for the practical and efficient work of the Department [of Agriculture], including employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), of which not to exceed $10,000 is for employment under 5 U.S.C. 3109: Provided, That this appropriation shall be reimbursed from applicable appropriations in this Act for travel expenses incident to the holding of hearings as required by 5 U.S.C. 551-558.

In addition, for necessary expenses of the Department to implement a method of testing, evaluating, and acquiring new automation and telecommunications technologies, $90,000,000, to remain available until expended, which may be transferred to any agency of the Department for its use in the testing, evaluation, or acquisition of new automation and telecommunication technologies.

1 The first change proposes to establish the Office of Finance and Management as a separate budget activity to reflect that this activity reports to the Chief Financial Officer.

2 The second change recognizes the creation of the Office of Small and Disadvantaged Business Utilization and the Office of Civil Rights Enforcement and abolishment of the Office of Advocacy and Enterprise.

3 The third change establishes a new budget activity for the Info Share Program. Info Share is a cooperative effort between the farm service, rural development and natural resources agencies (ASCS, SCS, FmHA/RDA, ES, and FCIC) and Departmental staff offices. By sharing technologies and strategies under Info Share, USDA agencies will be able to take advantage of advancing technologies and modern business processes.

## DEPARTMENTAL ADMINISTRATION

| | |
|---|---|
| Appropriations Act, 1994 | $26,301,000 |
| Budget Estimate, 1995 | 118,307,000 |
| Increase in Appropriation | +92,006,000 |

| | | |
|---|---|---|
| Adjustments in 1994: | | |
| Appropations Act, 1994 | $26,301,000 | |
| Transfers from USDA agencies 1/ | +28,510,000 | |
| Adjusted base for 1994 | | 54,811,000 |
| Budget Estimate, 1995 | | 118,307,000 |
| Increase over adjusted 1994 | | +63,496,000 |

1/ Reflects funds from ASCS ($9,281,000), FmHA ($10,017,000), SCS ($9,112,000), and FCIC ($100,000) for Info Share in FY 1994.

### SUMMARY OF INCREASES AND DECREASES

(On basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Personnel | $5,554,000 | +$50,000 | +$384,000 | 5,988,000 |
| Finance and Management | 4,466,000 | +46,000 | +768,000 | 5,280,000 |
| Operations | 3,239,000 | +31,000 | +410,000 | 3,680,000 |
| Information Resources Management | 6,145,000 | +51,000 | -163,000 | 6,033,000 |
| Civil Rights Enforcement | 4,424,000 | +58,000 | +346,000 | 4,828,000 |
| Small and Disadvantaged Business Utilization | 613,000 | +7,000 | -- | 620,000 |
| Administrative Law Judges and Judicial Officer | 1,611,000 | +15,000 | -- | 1,626,000 |
| Emergency Programs | 249,000 | +3,000 | -- | 252,000 |
| Subtotal , Staff Offices | 26,301,000 | 261,000 | 1,745,000 | 28,307,000 |
| Info Share | 28,510,000 | -- | +61,490,000 | 90,000,000 |
| Total Available | 54,811,000 | 261,000 | +63,235,000 | 118,307,000 |

PROJECT STATEMENT
(On basis of adjusted appropriation)

| Item of Change | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 1. Departmental Staff Offices Personnel | $5,429,460 | 99 | $5,554,000 | 94 | +$434,000 | $5,988,000 | 94 |
| Finance and Management | 4,400,657 | 64 | 4,466,000 | 76 | +814,000 | 5,280,000 | 87 |
| Operations | 3,269,767 | 55 | 3,239,000 | 54 | +441,000 | 3,680,000 | 56 |
| Information Resources | 6,018,733 | 71 | 6,145,000 | 74 | -112,000 | 6,033,000 | 71 |
| Civil Rights Enforcement | 4,161,127 | 63 | 4,424,000 | 71 | +404,000 | 4,828,000 | 75 |
| Small & Disadvantaged Business Utilization | 600,000 | 9 | 613,000 | 9 | +7,000 | 620,000 | 9 |
| Administrative Law Judges & Judicial Officer | 1,420,743 | 18 | 1,611,000 | 21 | +15,000 | 1,626,000 | 21 |
| Emergency Programs | 241,750 | 4 | 249,000 | 4 | +3,000 | 252,000 | 4 |
| Subtotal Offices | 25,542,237 | 383 | 26,301,000 | 403 | +2,006,000(1) | 28,307,000 | 417 |
| 2. Info Share | 11,140,739 | 7 | 28,510,000 | 13 | +61,490,000(2) | 90,000,000 | 13 |
| Total DA | 36,682,976 | 390 | 54,811,000 | 416 | 63,496,000 | 118,307,000 | 430 |
| Unobligated balance | 255,763 | -- | -- | -- | -- | -- | -- |
| Total Available or Estimate: | 36,938,739 | 390 | 54,811,000 | 416 | 63,496,000 | 118,307,000 | 430 |
| Transfers from: | | | | | | | |
| ASCS | -3,260,620 | -1 | -9,281,000 | -4 | | | |
| FmHA/RDA | -5,595,386 | -2 | -10,017,000 | -4 | | | |
| SCS | -827,733 | -2 | -9,112,000 | -3 | | | |
| FCIC | -1,334,000 | -1 | -100,000 | -2 | | | |
| ES | -123,000 | -1 | -- | -- | | | |
| Total Appropriation | 25,798,000 | 383 | 26,301,000 | 403 | | | |

## EXPLANATION OF PROGRAM

This appropriation provides for the following activities:

Personnel - This office provides leadership, coordination and monitoring of the personnel management program in the Department and promulgates Departmental policies and procedures relating to all personnel functions. The Office of Personnel provides liaison with the Office of Personnel Management and sponsors innovations and change in personnel management. Operational services are provided to the Office of the Secretary, Office of the General Counsel, Office of Communications, Office of Budget and Program Analysis, and the Departmental Administration Staff Offices. Direction is provided to the Department's integrated payroll/personnel system that is utilized by a cross-section of Federal agencies.

Finance and Management - This office provides Departmental leadership in developing and evaluating programs in finance, accounting, travel, management control, Federal assistance, management and productivity improvement, metrication, audit follow-up and final action and occupational safety and

health. The Director serves as the Department's management improvement officer and comptroller of the Working Capital Fund. OFM provides key staff support to the Department's Chief Financial Officer in implementing the CFO Act of 1990. Finance and Management also provides budget, accounting and fiscal operational services to the Office of the Secretary, the Departmental Administration Staff Offices, Office of Communications, and the Office of Budget and Program Analysis.

Operations - This office provides USDA agencies leadership, oversight and policy development in the areas of real and personal property, procurement, contracts, transportation, motor vehicles and supply. Under an agreement with GSA, it operates and provides maintenance, security and services to the Washington, D.C. building complex. The Office of Operations also provides procurement, contract, leasing, and other administrative support services to the Office of the Secretary, Office of Communications, the Office of Budget and Program Analysis, and the Departmental Staff Offices.

Information Resources Management - This office develops, and disseminates Departmental standards, guidelines, rules, and regulations to implement approved Information Resources Management (IRM) principles, policies, and programs that improve the operational effectiveness of USDA's programs. It provides for Departmental long range IRM planning, guides the IRM planning of USDA agencies, and monitors and oversees major agency and Departmental IRM programs. The Director also serves as Departmental clearance officer for information collection. The Office of Information Resources Management also provides telecommunications and ADP services to USDA agencies and staff offices through the National Computer Centers in Fort Collins, Colorado and Kansas City, Missouri. The office also provides operational ADP services to the Office of the Secretary, Office of the General Counsel, Office of Communications, the Office of Budget and Program Analysis, and the Departmental Administrative Staff Offices.

Civil Rights Enforcement - This office provides overall policy and program guidance, leadership, coordination and direction for the Department's civil rights and equal opportunity programs; plans and coordinates the participation of women, minorities, and disabled persons, in Departmental programs; and directs Departmental efforts to further the participation of minority colleges and universities in USDA programs.

Small and Disadvantaged Business Utilization - This office oversees direction and implementation of Sections 8 and 15 of the Small Business Act and oversees procurement to assure maximum participation of small and disadvantaged businesses in the Department's contracts for goods and services; and directs and monitors USDA agencies compliance in promoting full and open competition in the Department's contracting process.

Administrative Law Judges/Judicial Officer - The Administrative Law Judges hold hearings in connection with prescribing new regulations and orders and on disciplinary complaints filed by the Department or on some petitions filed by private parties asking relief from actions of the Department. The Judicial Officer renders final administrative decisions in regulatory proceedings.

Emergency Programs - This office is the Department's focal point of contact with the Federal Emergency Management Agency and all other Federal departments and agencies having emergency program responsibilities, and provides oversight, coordination, and guidance to USDA agencies in their emergency planning, training, and activities.

Info Share - This program is a new customer-oriented method for USDA agencies to test, evaluate and acquire new technologies which will emphasize one stop customer service and integrated data sharing. In the past USDA agencies independently acquired or developed data systems, hardware, and software to accomplish agency missions. This resulted in redundant business processes, a paperwork burden on USDA customers, high financial investments, and the inability of agencies to share information in an effective time frame. Info Share is a cooperative effort between ASCS, SCS, FmHA, RDA, ES, and FCIC agencies and Departmental staff offices. The basic goals of the Info Share initiatives are to reduce duplication, speed up delivery of customer services, and realize short- and long-term savings with the financial investments that are necessary for automation improvements. By sharing technologies and strategies under Info Share, USDA agencies will be able to take advantage of advancing technologies and modern business processes.

Because most of the current agency systems have reached the end of their useful lives, their replacement is necessary regardless of the concept of Info Share. However, the partnership concept embodied in Info Share initiatives show that significant costs can be avoided. The consolidation of requirements will provide much greater economies to the Department than separate hardware and software purchases by the individual agencies. The projected IRM acquisition costs through Info Share are less than 50 percent of previous agency estimates for separate systems.

Info Share focuses on supporting the field office of the future by fiscal year 1998. By the end of fiscal yea[illegible]93, contracts were awarded for personal computers and scientific work stations, commercial off-the-[illegible]lf software, and laser printers. These contracts support fast track initiatives and the agencies' interim computing needs. By the end of calendar year 1995, contracts will be awarded for software productivity improvement tools, which ultimately will become the Info Share standard for application development on the next generation of computers, integrating Info Share agency information systems. By 1996, contracts will be in place for hardware, software, and support services to meet long-range Info Share objectives. This technical architecture will be the Info Share platform(s) that replace existing systems used by the agencies to deliver services to USDA clients. The Info Share platforms will allow the agencies to share data and integrate applications and programs.

Under the Info Share concept, an Executive Committee, which includes the Assistant Secretary for Administration, Administrators of the agencies participating in Info Share or their designated representatives, the Deputy Chief Financial Officer, and the Directors of OIRM and OO, represents the Secretary's interests and ensures that Info Share is executed in concert with national priorities. The Committee sets and coordinates overall policy for Info Share.

The Info Share Board of Directors is composed of agency Senior Information Resources Management Officials (SIRMO's), the Deputy Chief Financial Officer, and the Directors of OIRM and OO. The Board determines the guidelines for data administration standards, life-cycle development methodologies and tools, systems design, technical standards for procurement, and telecommunications standards consistent with Departmental policies, standards, and guidelines. It collectively approves recommendations of the agency led Info Share teams and ensures that the individual agencies are focusing IRM efforts toward unified, integrated systems.

The Info Share management Staff and six Team Leaders are responsible for providing leadership in developing Info Share implementation strategies and managing Info Share projects. Each team is composed of agency IRM and program professionals and supported by sub-teams, each led by a participating agency, that carry out the complex, detailed strategies to implement Info Share. The Info Share management staff assists the partner agencies in fulfilling guidance from the Board of Directors.

Info Share has been classified into the following areas:

(a) Business Process Analysis--Projects under this area will analyze, evaluate, and design business processes which reflect a common documentation methodology supporting customer and agency needs and established criteria for selecting shared business processes that support short and long term needs. Seven business process strategies will accommodate changes required by legislation, identify unique, shared, and common business processes among the agencies, and provide cross training for employees to improve flexibility and customer services.

(b) Data Sharing--This initiative will focus on the development of a plan to implement the data management infrastructure that streamlines and reduces the number of forms used to collect customer information; standardizes data definitions across farm service, rural development, and natural resources programs; and requires fewer visits by customers to USDA field offices to conduct their business.

(c) Application Information Systems--This initiative focuses on providing a plan to convert existing applications and data, acquire new software development tools, and establish standards for developing new applications.

(d) Common Telecommunication Technologies--The Info Share computing environment requires that USDA customers and participating agencies have the capability to move, edit, and process information and data among many locations throughout the United States. The telecommunication initiative ensures that compatible telecommunications and networking technologies are acquired and implemented in a cost-effective manner which support the Info Share computing environment and customer services within it.

(e) Consolidated Acquisition Management--The Info Share projects under this area provide for centralized testing and acquisition of hardware and software for the automated systems of the agencies participating in Info Share. This large scale procurement initiative will result in consolidated acquisition and implementation of information processing resources to support integrated mission delivery to USDA customers. The short-term and long-range solutions will address the problems that currently face the computing environment of the Info Share partner agencies.

(f) Implementation--These funds will be used to coordinate with the field service and rural development agencies implementation of Info Share work products, analyses, and systems developed in conjunction with the other Info Share teams, including training on telecommunications and new equipment platforms.

(g) Info Share Management--These funds will be used to support the staff and expenses (including training, security, and internal controls) associated with the leadership of the program and the management of Info Share projects. The Info Share core staff is primarily responsible for day-to-day management of the Info Share initiative and its six main activity areas: Business Process Analysis; Data Sharing; Applications Information Systems; Common Telecommunication Technologies; and Consolidated Acquisition Management; and Implementation.

JUSTIFICATION OF INCREASES AND DECREASES

(1) A net increase of $2,006,000 for the Departmental Administration Staff Offices ($26,301,000 available in fiscal year 1994) comprised of:

(a) A net increase of $303,000 which reflects $261,000 for the fiscal year 1995 pay raise, an increase of $119,000 for inflation, and an administrative reduction of $77,000, as shown in the following table:

| Staff Office | Pay Cost | Inflation | Administrative Reductions | Net Change |
|---|---|---|---|---|
| OP | +$50,000 | +$4,000 | -$20,000 | +$34,000 |
| OFM | +46,000 | +12,000 | -3,000 | +55,000 |
| OO | +31,000 | +11,000 | -4,000 | +38,000 |
| OIRM | +51,000 | +35,000 | -39,000 | +47,000 |
| OCRE | +58,000 | +51,000 | -5,000 | +104,000 |
| OSDBU | +7,000 | -- | -- | +7,000 |
| OALJ | +15,000 | +5,000 | -5,000 | +15,000 |
| EP | +3,000 | +1,000 | -1,000 | +3,000 |
| TOTAL | +261,000 | +119,000 | -77,000 | +303,000 |

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $77,000.

Nature of Change. In order to achieve these savings, Staff Offices will reduce discretionary expenses by $77,000 in areas such as travel, training, supply purchases, printing and reproduction costs, and telephone usage.

(b) An increase of $1,862,000 is for program related increases to Staff Offices consisting of:

An increase of $400,000 for internal automation for the Office of Personnel (OP)

Need for Change. OP requests $400,000 for internal automation to provide central leadership and guidance for the Department's human resource management program. Automation of OP's information systems is essential in responding to proposals for the restructuring of USDA, and to carry out recommendations by the General Accounting Office (GAO) that OP provide greater oversight and leadership in work force planning, training and retraining, recruitment, personnel management evaluations, and work force diversity for the Department.

In an era of expanding human resource management responsibilities, automation of OP's information systems is the only way the Office will be able to provide effective central leadership for the Department's personnel programs. Most OP computers are old and outdated. Telecommunication linkages with agencies and other Departmental staffs are limited in quality and number. Current computer staff support is inadequate to the short-and long-term basic automation needs of OP.

OP currently lacks uniform equipment, the ability to communicate, and the capability to manage large (Department-size) databases. OP's internal automation goals are: (1) To replace annually one third of the Agency's work stations, to provide employees with the capability to do their job throughout the 1990's and to standardize all equipment and software; (2) to provide a fully functioning external communications capability; (3) to provide the capacity to download and analyze National Finance Center payroll/personnel data for all of USDA; (4) to provide staff support to establish new and innovative systems applications, perform system maintenance, provide "trouble-shooting" services for employees, and the required security officer for office automation; and (5) to improve office automation training for all employees.

Nature of Change. Funds requested will enable OP to create approximately 45 new computer work stations, to replace defective equipment, to stay current with changing technology, and to provide employees with modern work stations. OP will obtain a high-capacity computer and link it to other OP computer work stations, as well as to other USDA agencies to download NFC payroll/personnel data on a bi-weekly basis for analysis of USDA work force. The OP LAN would be provided with full functioning external communication capability.

An increase of $759,000 and 11 staff years for the Office of Finance and Management (OFM) to improve USDA financial systems.

Need for Change. Financial Systems at USDA need large-scale remedial action to address GAO and OIG audit findings and concerns that keep this area in OMB's "high-risk" category. USDA operates six different nationwide accounting systems, each requiring corrective actions and strengthened central oversight and coordination. To meet OMB requirements for Five Year Financial Systems Plans for Executive Departments , additional staffing is needed to analyze, monitor and improve accounting, financial information and performance data. This plan also mandates greater emphasis on modernization and consolidation of financial systems, elimination of duplicative and unnecessary subsystems, and development of projects to bring systems into compliance with Federal standards.

The CFO Act requires Executive Departments to develop and submit Consolidated Financial Statements for audit. OFM lacks the staffing to provide the level of effort required. The 1991 and 1992 statements were compiled through wholesale reassignment of the financial systems staff from other requirements. Despite this effort, audits of the statements revealed systemic problems. A full-time, dedicated staff is urgently needed to satisfy the legislative mandate.

The Department is also responsible for the management of vast amounts of public assets. For example, USDA is the second largest holder of debts due the Federal government. OFM has been responsible for improvements in collecting debts via tax refund and Federal salary offsets, credit bureau reporting, improved cash management efficiencies through use of lockboxes, electronic funds transfer and aggressive reduction of Prompt Payment Act interest penalties. More needs to be done and the resources requested herein will give OFM the wherewithal to reap additional tangible benefits in asset management.

Nature of Change. Salaries, benefits, and operating costs requested for 11 added staff years will provide the leadership, oversight and strategic coordination needed to begin improving financial systems, reporting and asset management.

An increase of $403,000 and 2 staff years for the Office of Operations to staff activities that respond to recently enacted laws, regulations promulgated as a result of those laws, and areas that have been found to be inadequately addressed by the central guidance agencies and the Congress.

Need for Change. OO has continually absorbed new functions every year without budgetary increases for such activities as:

- 1890 Excess Property Initiative
- Alternative Fueled Vehicle Management
- Commercial Credit Card Implementation
- Stewart B. McKinney Homeless Act Reporting
- Collocation Policy and Reporting

All of these programs require staff years and resources that were taken from other areas. These absorbed functions are OO's responsibility and will continue to expand even as OO is streamlining.

In fiscal year 1993, salaries and benefits were approximately 90 percent of the total $3.2 million allowance, fixed costs such as Departmental central charges for printing, mail service, computer connect time at NFC, telephones, car leases, and car phones are approximately 8% or $255,000. This leaves $64,000 or just under 2 percent in the budget for travel, training, awards, supplies, and equipment. These are the same areas where OO must make "administrative overhead" reductions. After paying all employees and covering their fixed operating costs, very little remains for OO to travel to conduct property management reviews, to do procurement reviews, and to train employees. To survive, OO has increasingly used lapsed salary funds from positions held vacant for very long periods. Also, OO has worked to progressively flatten its organization structure. Some managerial positions have been replaced by subject matter experts who can provide direct services to the client agencies.

In addition, there are two new positions that must be funded in fiscal year 1995, both of which are grade GS-15. One position is added as the result of an EEO settlement. Another USDA agency has agreed to pay for this position until fiscal year 1995. The other increased position is the result of an interagency agreement to transfer a procurement analyst from Forest Service to OO's procurement division. This position staffs the CFO led program to develop a plan to improve the performance and responsiveness of USDA's acquisition and assistance system. OO does not currently have the resources to cover the additional $158,000 needed in salaries and benefits for these positions.

OO's benefits rate has increased to 19% as CSRS employees retire or leave and are replaced by FERS employees. Also, OO has tremendous Departmental oversight responsibilities for real and personal property management, management of motor vehicles and aircraft, and procurement. In order to provide the necessary oversight, OO specialists must receive the proper training in current regulations, and must be able to travel to the field for compliance reveiws, and to render technical assistance.

A serious result of underfunding in the area of equipment was demonstrated last summer when a disk drive that supports OO's link to the Departmental Local Area Network failed. Due to budgetary constraints, there was no tape backup. Valuable data on property systems across USDA was irretrievably lost and had to be laboriously re-entered. Currently, there are no funds available for equipment maintenance agreements, except for several telefax machines. This places Departmental property data systems in an extremely vulnerable position.

Nature of Change. This increase will cover salary, benefits, and other operating costs necessary to fund OO staff, including the two additional positions. The requested resources also will be used to:

- Establish a Department-wide training program on uniform property management.

- Conduct on-site review and assistance visits to prevent fraud and waste in the areas of contracting and property management.
- Conduct onsite visits to 1890 Land Grant Institutions, focusing on those that are not fully participating in property programs due to lack of training and increase excess property acquisition from $4 to $8 million.
- Conduct reviews of USDA aircraft and motor vehicle fleets to improve management of these valuable assets.
- Improve Departmental property management methodology and technology, including streamlining and consolidation of property management services.
- Conduct increased oversight through procurement management reviews conducted at the field level with follow on visits as needed.
- Improve the Department's ability to certify that agency and Department-wide procurement systems are adequate, secure, and meet the integrity standards for procurement systems as required by E.O. 12352 and the Office of Federal Procurement Policy Act.

The added resources will strengthen OO's policy, oversight, and guidance to USDA agencies during a period of streamlining and reorganization of the Department's agencies and programs.

An increase of $300,000 and 4 staff years for the Office of Civil Rights Enforcement (OCRE) for complaint and compliance reviews.

Need for Change. OCRE requests $300,000 and 4 staff years to address the Department's compliance review and independent complaint investigation capability. A recent lawsuit by the Farmer's Legal Action Group against USDA alleged that a lack of resources to conduct compliance reviews and investigations of program discrimination complaints was responsible for complaints not being addressed in a timely manner. A USDA Taskforce appointed by the Secretary submitted a report identifying the scarcity of resources and concluded that the USDA agencies must devote adequate resources to conduct compliance reviews.

Nature of Change. The requested funds would be used to develop compliance manuals for agencies and USDA program recipients, to conduct two additional on-site compliance reviews and ten on-site complaint investigations per year, to reduce average processing time of complaints to 180 days or less and to increase emphasis on expedited complaint settlement through conciliation.

The resources would also provide salaries and related operating costs for 4 staff years to improve OCRE's capacity to lead, direct, coordinate, and monitor civil rights compliance in USDA, and to provide timely and effective technical guidance and assistance to USDA agencies and clients on how to achieve effective civil rights compliance. The additional staff would permit allocation resources for dedicated review functions. At the present time, staff must also serve in other capacities, e.g., development of mandated affirmative employment plans, nondiscrimination in program benefit implementation plans, training, and technical assistance.

(c) A decrease of $159,000 in the Office of Information Resources Management for a reduction in Federal employment costs.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, OIRM is reducing employment from the FY 1993 base by four percent.

Nature of Change. To achieve the reduction target, OIRM will streamline its operations. The total reduction in personnel costs amounts to $159,000. OIRM is examing several options to consolidate and streamline its activities, e.g., oversight of telecommunications policy and operations, data management, and Departmental regulations under paperwork reduction.

(2) An increase of $61,490,000 for the Info Share Program which represents the consolidation of information systems planning, design, acquisition and management functions that are common to the six participating farm service, rural development, and natural resources agencies (ASCS, ES, FCIC, FmHA, RDA, and SCS.) The increased funds will be used for the following projects associated with Info Share Program: (a) Business Process Analysis, (b) Data Sharing, (c) Application Information Systems, (d) Common Telecommunication Technologies, (e) Consolidated Acquisition Management, (f) Implementation, and (g) Info Share Management.

Need for Change. In order for the common, shared automation services of the Info Share agencies to be combined, it is necessary to identify and document business processes that are held in common. Information requirements that support customer and agency needs must be defined, and criteria established to prioritize them for short and long range strategies. The agencies participating in Info Share will need to create and electronically share data on the customers they have in common. Proper data management by the agencies will enable them to streamline information collection, to reduce the number of forms used, to standardize data definitions for all Info Share agenices' programs, and to save time and require fewer visits by USDA customers to the field offices. The shared data base and improved customer services in the Info Share initiative will require the conversion of old software applications and the development of new ones.

The creation of a Common Access Manager (CAM) will assist Info Share agencies in accessing and sharing their current information. Integrated Computer Assisted System Engineering (I-CASE) tools will support the entire applications life-cycle from business analysis, through systems development, implementation, and maintenance. Other software applications will enable old data to be pulled into the new environment for optimum use of collected information.

In order to efficiently service its customers, the agencies participating in Info Share must have the capability to move information among their offices throughout the nation. This exchange is not possible without cost-effective acquisition and implementation of telecommunications and networking technologies. Co-location of agencies' field offices would be facilitated by the acquisition of compatible communications equipment and networks. Access to information by other USDA sites, the National Computer Center, the National Finance Center, and, possibly, commercial and educational institutions is essential for the continued future viability of the agencies and their missions.

Implementation of the Info Share initiatives will require the participating agencies to combine their resources as they explore the short and long term solutions to the current computing problems of the Info Share agencies' programs. Integrated mission delivery will necessitate the centralized testing and long-scale acquisition of hardware and software for the agencies. The centralized approach will provide a uniform approach, eliminate duplication, and reduce the cost of the procurement process.

Info Share will effectively support consolidation of USDA field offices and implement the Secretary's reorganization plan to reduce staff by 7,500 over the next five years. At the end of Phase I (mid-1996), Info Share will have implemented the local office environment. This environment is made up of microcomputers, shared file servers, periperals, and end-user tools to increase productivity. Fast track pilot projects that prove successful in fiscal year 1994 will be deployed nation-wide. Also in place by the end of Phase II (1998) will be those transition procurements that are necessary for meeting specific agency requirements. The transition procurements will be required to interoperate, or will provide a migration path to the Info Share environment from existing agency systems. The local office environment will be connected to both a local area network and a wide area network; providing accessibility among the Info Share agencies.

The Info Share projects must have coordinated implementation across project and agency lines. Implementation activities that must be coordinated are scheduled support of re-engineered program applications deployment, training of agency personnel on new systems platforms and telecommunications equipment, and new initiatives or pilots with major benefits in program

delivery or cost savings. Although the vast majority of the work associated with the Info Share initiatives will be performed by agency-based staff, a small independent, centralized staff is required to handle the day-to-day management of Info Share. Independent staff at the Department level should also be responsible for procurement, contract management, budget preparation and execution, and funds management duties.

Nature of Change. The increase in funding will provide for the establishment of the necessary tools and methodology that will enable agencies to establish an integrated, shared data base to support field offices and aid implementation of "one-stop shopping" for USDA customers. These resources will provide for costs associated with systems analysis, design and programming services, as well as provide for purchase of software and travel. The requested increase will provide for a telecommunications infrastructure to support the Info Share computing environment and customer services within it. Funding at this level will enable agencies to improve customer service with the development and implementation of application systems that will support the Info Share environment. Funding for the Info Share procurement will provide for the short and long term acquisitions of hardware, software, networking, and support services for the six participating agencies. Funds will provide for travel, training equipment, and contract services that support the implementation of new technology, equipment, and software for Info Share, as well as provide for the expenses associated with a small management staff.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Washington, D.C. . . . . | $36,682,976 | 390 | $54,811,000 | 416 | $118,307,000 | 430 |
| Unobligated balance . . | 255,763 | -- | -- | -- | -- | -- |
| Total Available or Estimate . . . . . | 36,938,739 | 390 | 54,811,000 | 416 | 118,307,000 | 430 |

DEPARTMENTAL ADMINISTRATION

STATUS OF PROGRAM

OFFICE OF PERSONNEL

The Office of Personnel (OP) provides overall direction and leadership and promotes innovation for USDA human resources management programs and initiatives, including Work Force Diversity. OP provides leadership to and coordinates the Department's personnel management program in major functional areas such as: recruitment and employment, employee and labor relations, compensation and performance management, training policy and executive development, personnel management information systems, and payroll/personnel systems. Following consultation with cross-serviced agencies, it establishes policy for the USDA payroll/personnel system that services 450,000 Federal employees. In addition, OP provides day-to-day operating personnel services to the Office of the Secretary and Departmental staff offices.

Current Activities:

1. Work Force Diversity. In cooperation with the 1890 Historically Black Land Grant Institutions, the Department implemented the USDA/1890 National Scholars Program to attract and assist outstanding students to careers in agriculture. USDA provides full tuition, fees, books, and a personal computer and software for competitively selected students pursuing a bachelors degree at one of the seventeen 1890 Institutions. The 1890 Institution provides room and board for each scholar. In fiscal year 1993, the program provided jobs and scholarships for 46 students with high Standard Achievement Test or California Achievement Test scores and high school grades, and a record of leadership and good citizenship. Additionally, USDA employed in Fiscal year 1993, 281 employees with targeted disabilities using the ceiling exemption for persons with targeted disabilities provided by the Office of Management and Budget only to USDA. This raised USDA's employment of individuals with targeted disabilities to 1,248 people or 1.74 percent of the permanent work force, up from 1.14 percent in fiscal year 1992.

2. Senior Executive Service Candidate Development Program (SESCDP). The second cycle of the Department's innovative SESCDP program began in May 1993. The quality and diversity of candidates in the first and second programs are exceptional. Forty nine percent of the candidates in the second program are women and minorities, a marked increase compared to USDA's existing SES work force where 8.7 percent are members of a minority group and 12.6 percent are women. Eleven individuals from this program have already been appointed to the SES. Four of these are members of a minority group and two are women. OP received the "Federal Sector--All Star Team Award" from the International Personnel Management Association for this program.

3. Rightsizing Plan. OP developed the Department's plan for "rightsizing" USDA to achieve mandated employment reductions and support the Department's restructuring and reinventing initiatives. The plan describes employment controls, employee placement strategies, rightsizing "tools" available to management, work force diversity considerations, labor/management consultation guidelines, and implementation timetables.

4. Alternative Merit Promotion System. In cooperation with the USDA agencies, OP "reinvented" the Department's system for hiring internal job candidates to fill vacancies. Managers have been given flexibility in the kind of application materials they request from candidates and candidate evaluation methods. The knowledge, skills and abilities identified in the position description is used as the basis for the evaluation. Briefings and training for implementing this alternative system are underway.

5. Alternative Forms of Discipline. Under this new Departmental policy, the first of this size in the Federal Government, employees may be offered a choice of negotiating an alternative discipline agreement in lieu of traditional penalties. This approach focuses on remedial experiences rather than punishment. It provides opportunities for agencies to better manage increasing caseloads, reduce administrative costs, and rehabilitate employees for productive Government service.

Selected Examples of Recent Progress:

1. Personnel Leadership Forums. In FISCAL YEAR 1993, three Personnel Leadership Forums featuring high quality speakers and panel discussions on major human resources issues were held in Washington, D.C., and broadcast to USDA teleconference sites nation-wide. These Forums addressed: "Planning for a Comfortable Retirement"; "Reinventing Government" for USDA personnel specialists, featuring David Osborne, co-author of Reinventing Government; and "To Think Anew and Act Anew," which discussed the proposed USDA reorganization, as well as actions for streamlining personnel administration.

2. USDA Training Center. OP opened the seven room USDA Training Center that provides state-of-the-art equipment in the USDA headquarters South Building. The cost of operation is borne by users of the facility and is significantly less than renting comparable commercial space on-site. The center also avoids lost time and money transporting people to outside facilities.

3. Reinventing Personnel Administration - Modernization of Administrative Processes (MAP). OP is leading the USDA personnel community in a participative process to eliminate or streamline administrative regulations and processes that affect managers, employees, and the public. Employee "Change Teams" are designing and implementing new personnel processes for the short- and long-term. Some initiatives include: (a) Evaluation and pilot testing of automated personnel processing systems in cooperation with USDA's cross-serviced agencies; (b) Use of a single position description for entry through journeyman level to eliminate artificial distinctions and unnecessary paperwork; (c) Sunset of the Department Personnel Manual (DPM) on October 30, 1993; and (d) Delegation to managers of position classification and employee discipline authorities.

4. Ethics Training and Briefings. OP coordinated a multi-agency team to deliver mandated ethics training for all USDA employees. In FISCAL YEAR 1993, one hour of training was provided to USDA employees. In addition, ethics briefings were provided to outgoing and incoming political appointees. A minimum of two hours of training will be provided annually to more than 22,000 employees world-wide.

5. Incentive Awards. The USDA awards process was "reinvented" by a cross-section of agency employees and OP to emphasize employee participation, local design, and greater use of non-monetary awards. Employee focus groups were held as part of data gathering. In addition, OP provided planning and operational support to the Department's first "Celebration of Excellence" ceremony.

## OFFICE OF FINANCE AND MANAGEMENT

The Office of Finance and Management (OFM) provides leadership, development, and evaluation of programs in finance, accounting, fiscal policy, Federal assistance, management control, financial management systems, audit follow-up and final action, management and productivity improvement, and metrication implementation. It is also responsible for the management and operation of the National Finance Center (NFC). The Director serves as the Department's Management Improvement Officer and Comptroller of the Working Capital Fund. Also, OFM provides budget, accounting and fiscal services to the Office of the Secretary, Departmental Staff Offices, and centralized appropriations.

Current Activities:

1. Management Control. USDA is strengthening the Department's management control process by reviewing and closely monitoring high risk areas. In addition to the Departmental Financial Information System, USDA's agencies with high risk areas include the Food and Nutrition Service, Farmers Home Administration, and the Federal Crop Insurance Corporation. OFM continues to provide assistance and monitoring in remedial action programs for these high risk areas. USDA has initiated the development and implementation of performance measures that will be utilized by USDA agencies within their financial statements.

2. Debt Management. During fiscal year 1993, Department of Agriculture agencies collected over $13 million from tax refund offsets.

3. ADP Security. Several management and technical weaknesses have been identified in the ADP security program at OFM/NFC. A comprehensive review is being performed to provide guidance on the best way to eliminate them.

4. Cost Management Program. OFM renegotiated and continues to manage the USDA unemployment compensation contract which 23 other Federal entities are also utilizing. In addition, USDA is working to resolve billing problems with the Bell Atlantic Company and American Telephone and Telegraph Company. Due to divestiture and the general services changes in local telephone service, major changes in bill payment systems are required to ensure proper payments.

5. Travel Management. Travel management continues to be a high priority especially with the transition to a new contractor for the travel and transportation payment and expense control system.

Selected Examples of Recent Progress:

1. Financial Statements. The consolidated statements include a statement of financial position, statement of operations, statement of cash flows, and a statement of reconciliation to budget reports. OFM prepared and submitted to the Office of Management and Budget (OMB), preliminary fiscal year 1992 Consolidated Financial Statements for the Department prior to the statutory due date of March 31, 1993.

2. Cash Management. During fiscal year 1993, OFM cash management initiatives resulted in accelerated collections and improved disbursement mechanisms, including:

- $7.6 billion from cash concentration system collection;
- $6.2 billion from electronic funds transfer collections;
- $3.1 billion from lockbox and credit card collections;
- $16 billion from electronic funds transfer disbursements;
- $1.3 billion from Direct Deposit/Electronic Funds Transfer for employee payments;
- $54 million from small purchase credit cards and third party drafts; and
- $97 million from travel and charge card payments.

During fiscal year 1993, USDA paid 99.3 percent of payments subject to the Prompt Payment Act on time. USDA incurred about $2.0 million in interest penalties with an occurrence rate of about .6 percent.

3. Metric System. In fiscal year 1992, OFM completed a Departmental Regulation establishing Department-wide policy and assigned the responsibilities for an orderly transition to the metric system. OFM also established the USDA Metric Coordination Committee. OFM continues to perform the following initiatives to implement metrication: (1) participates as USDA's representative in the activities of the Interagency Council on Metric Policy and its Metrication Operating Committee; (2) monitors individual agencies' metric implementation; (3) provides USDA agencies with assistance and technical guidance in the conversion to metrication; and (4) coordinates the Department's Annual Metrication Implementation Report.

4. Total Quality Management. OFM has provided oversight to the agencies in the implementation of TQM. Quarterly meetings with Agency Heads and TQM Coordinators enabled the agencies to share information and experience about their quality implementation efforts. Quality strategies have been refined, processes improved, and skills and knowledge in the transition to a total quality culture have been enhanced. As funds are available, OFM will establish a Library of TQM related information for agency use in implementing TQM processes.

## OFFICE OF OPERATIONS

The Office of Operations (OO) provides Departmental policy, oversight, and guidance for the management of real and personal property, procurement, contracts, transportation, supply, motor vehicles, aircraft, and energy conservation. Certain centralized administrative services are also provided in Washington, D.C., including headquarters facilities management; mail processing; acquisition, warehousing, and distribution of forms, publications, and office supplies; reproduction and copying services; shipping and receiving; imprest fund; automated procurement; and administrative support to the Office of the Secretary.

Current Activities:

1. Info Share Consolidated Acquisition Program. OO is providing the procurement support for the Secretary's initiative known as Info Share. Info Share will replace outdated and incompatible equipment in FmHA, ASCS, SCS, ES, RDA and FCIC with open systems technology which will permit business process re-engineering, common use applications, and streamlined service to the public.

2. MAP Electronic Information Task Force. OO is the lead agency for consolidating and streamlining the retrieval of electronic database information for the entire USDA. This should result in overall reduced costs and the availability of many types of information to a wider audience.

3. Third Party Draft System. OO awarded a Department-wide contract for financial services to pay for goods and services up to $2,500 with drafts, which are similar to checks. USDA will benefit from improved efficiency and reduced costs both by streamlining its acquisition and payment processes and by reducing its cash imprest fund balances.

4. Alternative Fuels Use. To promote the use of ethanol as a preferred alternative fuel, OO published a nationwide "Directory of Service Stations Selling Ethanol-Blended Gasoline." The Directory which lists 3,500 service stations, is being distributed to other Federal agencies. OO in conjunction with the Office of Energy, the National Institute for Science and Technology, the Environmental Protection Agency, the General Services Administration, manufacturers, special interest groups, state organizations, contractors, and USDA agencies, also began testing the effects of bio-diesel fuel on heavy equipment.

5. Procurement Professionalism Program Policy - Training for Contracting Personnel. The Department is presently implementing OFPP Policy Letter 92-3, which establishes a standard for procurement systems. The new guidance requires the Agency Head to ensure that all contracting personnel either complete a series of competency based training courses or demonstrate their competence to perform contract duties through alternative means. The Department must provide procurement personnel with quality training that is consistent from one training location to another. OFPP Policy Letter 92-3 also directs the Department to establish a system for certifying and reporting the completion of all required competency based training courses and on-the-job-training. In accordance with the Secretary's instruction, OO is creating a competency based contracting officer warrant system. The Secretary directed his Procurement Task Force to work with the Procurement Policy Office to pursue a mandatory competency based training program at one or more local colleges or universities. The Procurement Policy Office is presently working with the Procurement Task Force as they prepare to submit training recommendations to the Secretary in January 1994.

Selected Examples of Recent Progress:

1. ADP Procurement. OO awarded 16 Department-wide contracts for office automation, including desktop and laptop computers, laser printers, commercial off-the-shelf software, telecommunications equipment and support services. Twelve of the contracts were awarded to small, disadvantaged businesses. These contracts provide a vehicle for all USDA agencies to obtain needed products and services which are compatible and facilitate data sharing and eliminate the costs associated with duplicative procurement efforts at the agency level.

2. Improved Property Management. OO promoted the use of excess personal property, especially military excess resulting from base closures, to prevent unnecessary procurements. In fiscal year 1993, USDA obtained excess personal property valued at over $216 million. In concert with the USDA 1890 and Hispanic Institutional Task Forces, OO continued efforts to expand the acquisition and use of excess property by institutions. In fiscal year 1993, property valued at over $7 million was transferred to support research and educational programs.

3. Disability Employment Program. In cooperation with Kodak and Xerox, OO provided copier training for individuals from local organizations which have special and vocational education programs. This ongoing program will assist individuals with disabilities, as well as enhance USDA's recruitment pool.

4. Accommodations for Persons with Disabilities. OO conducted a Department-wide survey to determine levels of accessibility to all buildings where USDA employees conduct business. The survey consisted of an abbreviated version of the Uniform Federal Accessibility Standards (UFAS), Facility Access Survey Checklist. The majority (88%) of our facilities meet some facility standards for parking spaces, ramps, entrances, elevators, accessible routes, toilet facilities, sinks, drinking fountains, public phones, and alarms. Only 11% of reported facilities met all accessibility standards for parking spaces, accessible routes and toilet facilities. Only three tenths of one percent of USDA facilities meet all the standards on our survey's checklist. USDA agencies are scheduling comprehensive UFAS evaluations of all facilities in fiscal year 1994.

5. Utilization Surveys. In accordance with Federal Real Property Management E.O. 12512 and the Department's utilization program, OO provided oversight to surveys of 35 real properties consisting of more than 175,970 acres of land with a fair market value of over $63 million. OO coordinated with the Department's land holding agencies to report land and improvements valued at $25,000 with one relocation candidate valued at $205,000 as excess to GSA.

## OFFICE OF INFORMATION RESOURCES MANAGEMENT

The Office of Information Resources Management (OIRM) provides policy guidance, leadership, coordination, and direction to the Department's information management and information technology activities in support of USDA program delivery. The office provides long-range IRM planning guidance, performs reviews of agency IRM programs, coordinates inter-agency IRM projects, and defines, and implements standards to promote sharing information. The office manages the telecommunications programs of the Department and operates the National Computer Center at Kansas City, Missouri and Fort Collins, Colorado.

Current Activities:

1. Data Management. OIRM is establishing the USDA Data Management program and drafted several policy and procedural documents and circulated them for review. A USDA Information Management Process which focuses on how Information Management and Information Delivery Systems directly support USDA Programs was completed and disseminated to the agencies. In addition, a Data Management Sub-Council under auspices of the USDA IRM Council has been formed. The Data Management Sub-Council will address data management issues of interest to the Department as a whole and serve as an advisory body to OIRM and the IRM Council.

2. Telecommunications Policy. OIRM is currently engaged in a review and major rewrite of all departmental directives for telecommunications policy to ensure that they are based on accepted industry and governmental standards. One goal is to condense and incorporate all telecommunications regulations into a single directive to reduce and simplify the IRM policy structure.

3. Telecommunications Planning. OIRM will develop an annual update to the 5-year USDA long-range Strategic Telecommunications Plan and develop Open Systems Integration (OSI) transition and implementation plans. OIRM will identify resource requirements and develop an implementation plan for initiatives recommended in the initial Strategic Telecommunications Plan.

4. Agency Liaison Officer (ALO) Program. ALOs are working with USDA agencies to integrate analysis of agency Information Resources Management (IRM) budgets and plans through improved coordination and oversight, earlier planning, concentration on IRM components of cross-cutting issues, and detailed IRM budget reviews. The program was fully staffed in fiscal year 1993 and is successfully implemented at this time.

5. Accessibility Program and Technology Accessible Resources Gives Employment Today (TARGET) Center. The TARGET Center's mission is to support the Department's work force diversity and the Federal work force 2000 policies. The center aids in making information and microcomputer technology accessible to persons with sight, hearing, speech and mobility impairments to assist with career enhancement. These services assure equal access to electronic technology and automated systems essential to today's jobs.

Selected Examples of Recent Progress:

1. USDA Telecommunications Long Range Plan. OIRM, with contractor support, led an interagency project team in formulating a comprehensive standards-based telecommunications strategy that supports USDA Business and Strategic Plans. This plan was completed in the third quarter of fiscal year 1993.

2. USDA Electronic Mail Review. OIRM led an interagency project team in a review of Departmental electronic mail. The review team assessed the effectiveness of the "backbone" electronic mail system and the ability to exchange electronic messages. Several alternatives were considered and a recommendation forwarded in the team's final report.

3. Acquisition of IRM Resources. Almost 90 percent of acquisitions costing more than $500,000 are analyzed through the Departmental Parallel Review Process. This process focuses on data and information requirements. This technical review is being applied to major acquisition efforts to ensure coordination of IRM standards for data, software, communications, and equipment.

4. Data Management. OIRM completed the first steps of the USDA Data Management program. These steps focused on how information management and information delivery systems directly support USDA programs. To achieve the anticipated benefits of reinventing USDA, there must be accurate and timely information for decision making, increased sharing of information and other resources, reduction of costs and elimination of duplication.

5. USDA Information Resources Management (IRM) Strategic Plan. The Office of Information Resources Management and representatives of the agency IRM community developed and the Secretary issued the USDA IRM Strategic Plan in January 1993. The plan is intended to guide the progress of information resources management in USDA over the next five years and to ensure that USDA agencies work together to achieve the IRM approach needed to meet USDA's program responsibilities.

## OFFICE OF CIVIL RIGHTS ENFORCEMENT

The Office of Civil Rights Enforcement (OCRE) provides overall policy and program guidance, leadership, coordination and direction for the Department's civil rights and equal opportunity programs; plans and coordinates the participation of women, hispanics, blacks, native Americans, persons with disabilities, minority colleges and universities, etc., in Departmental programs; and directs and monitors agency compliance in promoting full and open competition in the Department's contracting process.

Current Activities:

1. Civil Rights Offices. Authorities. responsibilities and functions related to EEO Counseling and Mediation, Title VII of the Civil Rights Act of 1964 (investigation and resolution of equal opportunity complaints formerly within the Office of Personnel), and Title VI of the Civil Rights Act of 1964 (program complaints formerly handled by individual USDA agencies and reviewed by the Office of Advocacy and Enterprise) are currently being transferred to the newly established Office of Civil Rights Enforcement(OCRE). Steps are currently being taken to reorganize civil rights functions within USDA by establishing civil rights offices at the Under and Assistant Secretary level. This will increase management control and accountability in carrying out the Department's civil rights policies and objectives. The proposed changes are as follows:

(a) Small and Disadvantaged Business Utilization (OSDBU). Responsibilities and functions related to this unit, formerly assigned to the Office of Civil Rights Enforcement, have now been established as a separate staff office.

(b) Disputes Resolution Board. Established as a pilot on October 1, 1993, this Board's function is to negotiate EEO complaints that were not resolved by the EEO Counselor. To date, 27 of 28 cases have been successfully resolved.

Selected Examples of Recent Progress:

1. Civil Rights Analysis. OCRE issued a Departmental regulation requiring a civil rights impact analysis for all proposed major policy actions (legislation, budget, reorganization, new policies, etc.).

2. Title VI Program Discrimination. In fiscal year 1993, OCRE received 393 complaints, 141 more than for FY 1992. This represents a 56 percent increase. An analytical framework was adopted to determine if discrimination occurred. The framework is based on the complainant establishing and maintaining a prima facie case.

3. EEO Complaint Processing. EEO Counselors throughout the Department reported 2,125 informal contacts involving alleged EEO discrimination for FY 1993. Unresolved cases were forwarded to the OCRE Disputes Resolution Staff. Of those cases, 639 were forwarded for investigation.

4. Civil Rights Training. OCRE developed a civil rights training video for USDA field level employees who provide services to the public. Nine technical assistance workshops were conducted to train agency civil rights staff in compliance responsibilities.

5. Special Emphasis Programs. OCRE sponsored five career development and management seminars for women. Conducted USDA's first National Training Conference for Women in Albuquerque, NM, with over 450 attendees. In support of the Secretary's strong statement regarding zero-tolerance for sexual harassment, OCRE distributed the revised sexual harassment brochure throughout the Department.

## OFFICE OF SMALL AND DISADVANTAGED BUSINESS UTILIZATION

The Office of Small and Disadvantaged Business Utilization (OSDBU) provides Department-wide leadership in the implementation and execution of programs under section 8 and 15 of the Small Business Act, as amended, as well as Executive Order 12432, to promote the growth and

competitiveness of small, minority and women-owned businesses through equitable participation in the Department's procurement and program opportunities.

Current Activities:

1. OSDBU Function. OSDBU began the process to reorganize the OSDBU Coordinators' responsibility within the Department by having the OSDBU Coordinators report at the Under and Assistant Secretary level.

2. OSDBU Policy Statement. OSDBU is preparing a statement of policy to provide guidance to the Department relative to small, minority and women-owned business utilization.

3. Acquisition Management. In an effort to identify contract opportunities prior to commitment of the resources, an advanced acquisition plan is being formulated to capture proposed acquisitions.

Selected Examples of Recent Progress:

1. Procurement Reviews. As part of OSDBU's oversight responsibility, six procurement assistance reviews were conducted during fiscal year 1993 at the Soil Conservation Service, Agricultural Research Service , and Farmers Home Administration in the states of Texas, South Carolina and California. These reviews identified a number of concerns with small and disadvantaged business procurement operations in these offices. OSDBU is now working with the agencies to develop and implement corrective actions.

2. Procurement Forecast. OSDBU prepared an annual Procurement Forecast which related to contracting opportunities for nine USDA Agencies.

3. Small Business Conferences. OSDBU staff participated in 18 small business procurement conferences and trade fairs to provide guidance and information on the types of products and services procured by the Department and to locate potential small and disadvantaged business sources to assist agencies in attaining their goals and matching unique requirements.

4. Minority Vendors. Advertisements were published in "Black Enterprise" and "Hispanic Business Week" to locate minority vendors in the food commodity arena.

5. Minority Participation. OSDBU met with officials of the ASCS Kansas City Commodity Office to determine how we could improve minority participation in their specific program area and to offer technical assistance.

6. Training. Three quarterly training sessions were held for 18 OSDBU Coordinators at headquarters. The sessions, which related to the Small Business Act, involved discussions and dissemination of information on new laws, regulations, Executive Orders, or issues that affect the small business program. Headquarters Coordinators are responsible for disseminating this information to their field locations.

## OFFICE OF ADMINISTRATIVE LAW JUDGES/JUDICIAL OFFICER

The Office of Administrative Law Judges consists of five Judges, who conduct rulemaking and adjudicatory hearings throughout the United States in proceedings subject to the Administrative Procedure Act (APA), 5 U.S.C. 554 et seq. There are approximately 37 statutes administered by agencies within the Department of Agriculture requiring APA hearings. The Judges issue initial decisions and orders in adjudicatory proceedings, which become final decisions of the Secretary unless appealed to the Secretary's Judicial Officer by a party to the proceedings. Final consent orders are issued by the Judges following hearings or upon waiver of hearing. In addition,, the Judges perform related duties, which are consistent with their duties under the APA, such as the Chief Judge's performance of administrative duties and the conduct of appropriate non-APA hearings.

The Judicial Officer serves as final deciding officer, in place of the Secretary, in regulatory proceedings of a quasi-judicial nature. These include appeals from the Administrative Law Judge's initial decisions, and reparation proceedings under the Perishable Agricultural Commodities Act and the Packers and Stockyards Act, which do not require hearings before Administrative Law Judges under the APA. Any party to a proceeding may appeal an Administrative Law Judge's initial decision to the Judicial Officer. Oral argument before the Judicial Officer is discretionary. The Judicial Officer also rules upon matters arising in proceedings that are certified by the Administrative Law Judges.

The Office of the Hearing Clerk receives, files and serves pleadings, briefs, and decisions. It maintains the official records of the Department (including the transcripts of adjudicatory and rulemaking hearings) and in the event of an appeal, certifies such records to the Court of Appeals or District Court for subsequent review. The Hearing Clerk is responsible for publication of Agriculture Decisions, the official compilation of quasi-judicial and judicial decisions issued under regulatory laws administered by the Department.

In addition to processing cases that come before Administrative Law Judges, the Hearing Clerk's Office processed the following in FY 1993:

| | |
|---|---|
| Perishable Agricultural Commodities Act: | |
| Reparation Cases | 389 |
| Packers and Stockyards Act Reparation Cases | 20 |
| Certification and Authentication of Documents | 60 |
| Certification of Administrative Records to Federal Courts | 12 |
| Board of Contracts Appeals: | |
| Scheduling/Canceling Reporting Service | 42 |

The following table indicates the number of hearings held by Administrative Law Judges during the past 3 fiscal years, together with the number of initial decisions after hearings, initial decisions upon default, and final consent orders following hearing or upon waiver of hearing. At the end of fiscal year 1993, 112 cases were pending before the Judges, of which 62 were scheduled for hearings.

**HEARINGS AND DISPOSITIONS**
(Adjudicatory; Unless Otherwise Indicated)

| Type of Proceeding 1./ | FY 1991 | | FY 1992 | | FY 1993 | |
|---|---|---|---|---|---|---|
| | Hearings | Dispositions | Hearings | Dispositions | Hearings | Dispositions |
| AGRICULTURAL MARKETING AGREEMENT, 1937: | | | | | | |
| Adjudicatory | 2 | 22 | -- | 11 | -- | 3 |
| Rule-Making | 5 | 2 | 3 | 1 | 3 | 5 |
| INSPECTION & GRADING - Adudicatory | -- | -- | -- | 1 | -- | -- |
| ANIMAL QUARANTINE & RELATED LAWS: | | | | | | |
| Veterinary Accreditation | 1 | 8 | 2 | 7 | 1 | 4 |
| Animal Quarantine | 7 | 69 | 1 | 72 | 5 | 67 |
| Plant Quarantine | -- | 70 | 2 | 121 | 3 | 140 |
| ANIMAL WELFARE ACT | 5 | 56 | 4 | 44 | 4 | 21 |
| BEEF PROMOTION RESEARCH ACT | 1 | 1 | -- | 2 | -- | 1 |
| EGG RESEARCH & CONSUMER INFORMATION ACT | -- | -- | -- | -- | -- | 1 |
| FLUID MILK PROTECTION | -- | -- | -- | -- | -- | 1 |
| DEBARMENT, NONPROCUREMENT SUSP. | 2 | -- | -- | 2 | -- | -- |
| MEAT/POULTRY INSPECTION | -- | 8 | 1 | 8 | 2 | 4 |
| FOREST SERVICE SOURCING AREA APPLICATIONS | 7 | 30 | -- | 4 | -- | -- |
| GRAIN STANDARDS ACT | -- | 4 | -- | -- | -- | 1 |
| HONEY RESEARCH PROMOTION CONSUMER INFORMATION ACT | -- | 1 | -- | -- | -- | 1 |
| HORSE PROTECTION ACT | 16 | 164 | 22 | 149 | 13 | 87 |
| INSPECTION & GRADING | -- | 3 | -- | -- | -- | 1 |
| PACKERS & STOCKYARDS | 3 | 101 | 3 | 81 | 5 | 108 |
| PORK PROMOTION, RESEARCH & CONSUMER INFORMATION ACT | -- | -- | -- | -- | -- | 3 |
| PERISHABLE AGRICULTURAL COMMODITIES ACT | 5 | 88 | 4 | 61 | 5 | 60 |
| POTATO RESEARCH & PROMOTION ACT | -- | 1 | 1 | 1 | -- | -- |
| TOBACCO INSPECTION/PRICE SUPPORT (Rulemaking) | 2 | 2 | -- | -- | -- | 1 |
| TOTALS | 56 | 630 | 43 | 565 | 41 | 509 |

1. Proceedings are adjudicatory, unless specified otherwise.

## EMERGENCY PROGRAMS

Emergency Programs (EP) serves as the Department's focal point for coordinating emergency programs and is the primary contact with the Federal Emergency Management Agency and other Federal departments and agencies with emergency programs responsibilities. EP establishes emergency programs policy and manages emergency activities of the Department to ensure that a structure is in place to assess the impact of a disaster on food production, processing, and storage facilities, and that food and assistance programs are available in disaster areas. EP provides leadership, guidance, direction, and coordination to Regional Emergency Management Teams, 50 USDA State Emergency Boards and Puerto Rico and the Virgin Islands, and some 2,700 USDA County Emergency Boards. EP provides representation on the NATO Food and Agriculture Planning Committee and other international committees dealing with emergency activities relating to food and agriculture.

Current Activities:

1. Executive Order 10480. EP is in the process of coordinating USDA's contribution to the revision of Executive Order 10480 entitled, "Further Providing for the Administration of the Defense Mobilization Program." This Executive Order is the implementing document for the Defense Production Act of 1950.

2. USDA Emergency Response Structure. A review and assessment of the USDA Emergency Programs response structure with a view toward improving responsiveness is currently underway. After completion, EP will establish a comprehensive training program for USDA emergency personnel covering national security, natural disasters, technological, and other types of emergencies. EP also will coordinate Departmental Headquarters and field participation in NATO Civil/Military Exercise-94, Canadian Exercise II, Global-94, Radiological exercises, Chemical Stockpile Emergency Preparedness Plan exercises, and Response-94.

3. USDA Reorganization. EP staff is monitoring the reorganization activities of the Department to ensure continued readiness to respond to emergencies during this period and also to ensure that all emergency programs responsibilities are accounted for in the new USDA organizational structure.

4. Federal Emergency Management Agency Reorganization. The reorganization activities of the Federal Emergency Management Agency is being monitored to ensure that appropriate coordination is maintained throughout the transition period.

5. Departmental Regulations, Handbooks and Guidance. As the USDA reorganization proceeds, EP will begin updating Departmental Regulations, handbooks, and other guidance documents that impact upon the operation of the USDA emergency response structure at the Headquarters level, and at the regional, State and county levels.

INFO SHARE

STATUS OF PROGRAM

This new customer-oriented program within the United States Department of Agriculture (USDA) will help improve delivery of services to the American public through business process re-engineering and systems integration in the farm service, rural development and natural resources agencies.

There are six Info Share teams charged with developing and implementing the major activities that comprise the Info Share Program. Each team's foremost accomplishments for fiscal year 1993 are provided in this document.

BUSINESS PROCESS ANALYSIS (BPA) TEAM

In March 1993, the BPA team, which is comprised of program operations managers, determined the following top initiatives for improving customer service.

Methodology and tools to use in pilot and long-term projects - The team members were trained on the newly adopted Information Engineering (IE) methodology, existing business process analysis tools were inventoried and a Statement of Work (SOW) for providing a technical laboratory was submitted for contractor review.

Develop an Information Strategic Plan (ISP) for Info Share agencies - The BPA team established a core ISP team, consisting of participating agency personnel, trained them on IE methodology and developed an SOW for contractor support.

The team established criteria for shared business processes and selected 14 fast track projects to be implemented as pilot projects by the applications team.

DATA TEAM

The Data team's main responsibility is to utilize existing equipment and software to establish an Info Share data administration framework, an interim common database, and Info Share data standards prior to new acquisitions. The team's main strategies are explained in the following paragraphs.

Implement Info Share data management methodology and responsibilities - Existing data management policies, procedures, and standards were collected and evaluated for Info Share agencies' use. Policy and procedure manuals were developed to provide agencies with uniform standards and procedures to begin using to achieve one of Info Share's main goals of standardizing customer data.

Develop an Info Share data repository system - An interim data repository system was established to capture and sort shared data elements, definitions and other relationships. This provided a single near-term place to collect, identify and resolve discrepancies and to standardize common elements and definitions. New data element attributes were defined and implemented in the repository. An existing on-line user interface was updated to reflect Info Share processing requirements. Common terms used by Info Share agencies are being collected and reports written to document definitions, forms, custodian/user agency(s) and to document agreement regarding term definitions.

Standardize Info Share data elements and definitions - The team has identified and located existing sources of data elements for the Common Client Name and Address System (CCNAS) fast track project, added elements and definitions into the repository and identified multiple definitions, code values, size discrepancies, etc. for later resolution by agency business specialists.

Identify and direct data management training - Initial data management training objectives were identified and coordinated with the Training Staff.

APPLICATION INFORMATION SYSTEMS (AIS) TEAM

The AIS team is responsible for implementing the strategies to assist the agencies' clients in obtaining information and facilitating the sharing of common information between the partner agencies. A detailed project plan for development of the Common Access Manager (CAM) was prepared, requirements analysis was completed, the analysis of alternatives was documented, a benefit cost analysis was prepared, and technical approval was obtained. In September 1993, a task

order was awarded to 8(A) firm, FU Associates, to begin work on development of CAM and prototyping connectivity between the partner agencies' legacy systems.

Info Share developed a procurement strategy to acquire expert, objective assistance in the task of developing both short-term and long-term solutions to the connectivity and compatibility issues that face the Info Share agencies computing environments today. One of the prototype activities, referred to as the Technology Lab, addresses the need for developing procurement and acquisition documentation that will support the acquisition of computer hardware, software and networking capabilities that will satisfy the Info Share agencies' needs into the 21st century.

The purpose of the Technology Lab is to utilize a prototyping methodology to develop and refine the Info Share agencies' requirements and alternatives to support obtaining the approvals and funding necessary for long-range hardware and software acquisitions. This strategy will allow Info Share agencies' personnel to gain experience in the use of I-CASE and RDBMS toolsets to reduce the time between acquisition of new tools and deployment of applications to the field that support Info Share's missions. This strategy also provides opportunities to capitalize on the intangible benefits derived from having "real data" to support defining the requirements and to demonstrate "proof of concept" to Administration and Congressional officials. The SOW was developed for Task 1 of the Technology Lab and the contract was awarded to an 8(A) firm.

Fast Track Projects - The fast track projects were initiated in June 1993. Project sponsors and leaders were designated by the lead agency and a representative was assigned from each agency to participate on each project. These projects will be implemented in fiscal year 1994 .

Common Client Name and Address - This project will build a single name and address file containing all customers of Info Share agencies. It will solve problems such as redundant/erroneous data, multiple addresses and Privacy Act concerns. The agencies agreed upon the common elements to include in the database. The functional design was completed and the database developed.

Geographic Information Systems (GIS) - Each agency currently manages duplicated land unit databases through a manual process, resulting in synchronization problems. A SOW was drafted for the development of programs to provide for the interface between the tabular data and spatial data.

Conservation Compliance (AD-1026) - This project will provide Sodbuster/Swampbuster eligibility information in a database that will be accessible by all agencies. The requirements were defined and a database developed.

SCS Soils Information - This project will allow agencies to access the soils attribute data currently resident at SCS field office sites, and will eventually tie into the GIS project to display spatially. Functional requirements were started.

Farm Summary Information - This project began under the Easy Access initiative and will be expanded as an Info Share project. This is planned to be a two-part project, allowing access to farm data at the ASCS County Office sites and to farm data maintained by FCIC on the mainframe. Requirements were defined and program development is underway for both parts of the project.

Inventory Property System - The Acquired Property Inventory Tracking System (APTS) provides on-line access and ad hoc reporting to manage FmHA's inventory properties. Functional requirements are complete and systems design in progress.

Soils Information for the Planetor System - The Planetor System is an ES application used as a farm planning tool, designed for on-farm planning. This project will provide access to the SCS soils database at Iowa State University for use with Planetor. Functional requirements are being finalized.

PLANTS - Data now exists in tabular form within SCS on North American flora and 3,000 plants of agronomic and cultural significance. This data will be expanded and will be made accessible to other agencies. A second phase of the project will tie this data into the GIS project. Functional requirements are in progress.

ASCS/AMS Data Share (Cotton Classing) - Agricultural Marketing Service (AMS) in Memphis has a database of cotton grading and classing information that is necessary for cotton producers to obtain price support loans from ASCS. Procurement of PC's for the 200 ASCS County Offices was completed. Software was developed to obtain the information from the AMS database. Training was completed in September 1993 and the system placed in production. Service to the cotton producers was greatly expedited, allowing a check to be produced and handed to the farmer within minutes rather than days.

TELECOMMUNICATIONS TEAM

The Info Share Telecommunication Team's activities focus on the following projects or strategies.

Optimization and concentration - Many Info Share agencies have field office units co-located with other USDA agencies; however, the telecommunications equipment and services that support these co-located units are usually dissimilar and isolated. The cost of acquiring and operating these separate systems is excessive. The team will identify sites where the telecommunications facilities and services can be consolidated providing improved service at a lower cost. The contract vehicle needed to support this activity was established in August 1993. Optimization and concentration activities have been initiated at the first eight (8) sites. Savings at the Gainsville, Fla. location have been noted to be approximately $8,000/month which is typical of the savings expected.

Expanded INTERNET Access - Among the participating Info Share agencies there were three (3) INTERNET access nodes; however, due to a variety of problems INTERNET access was not available to the vast majority of Info Share agency personnel. The purpose of this strategy was to encourage cooperation among the Info Share agencies in order to allow general personnel access to this valuable network resource. The team has developed a comprehensive plan to manage network addresses. This plan will result in one organizational entity being accountable for managing the allocation of addresses to support all networking in the future. Connectivity solutions were established to allow for wide-scale access of INTERNET from users. Even a user with a PC and a modem can gain INTERNET access. A general INTERNET User Guide was published which provides comprehensive information on how to gain access to the INTERNET using the facilities established.

Enhance IBM mainframe network capabilities - The objective of this initiative is the implementation of a suite of advanced networking protocols on the IBM mainframes located at National Computer Center (NCC) and National Finance Center (NFC) to enable field office system access of valuable information resources that are located at these major data repositories. An initial production implementation of these capabilities was accomplished at the NCC in August 1993. Evaluation and testing of this initial implementation led to the identification of additional capabilities that are needed to enable a full-service environment on the IBM mainframe.

State-wide network implementation - The purpose of this initiative is to implement an integrated network environment among all field offices within an entire state. In addition, national computing resources will also be connected to this state-wide network facility. Local area networks (LANs) will be used to connect the legacy systems within a field office. An integrated wide area network (WAN) will be used to interconnect the field office LANs in order to form a fully connected, fully integrated network environment. The state of Kentucky was selected to be the pilot. The technical design of the Kentucky network was accomplished. This design included a solution for connecting agency legacy systems. The initial telecommunications service orders to support WAN connectivity have been placed. A contract mechanism has been established that can be used to acquire network equipment needed to accomplish the Kentucky implementation.

Training - This strategy is to provide telecommunications and network training for application programmers and field office staff in support of Info Share initiatives. Course curricula for application programmers and for field office workers have been drafted and two network programming courses, "C Language Programming" and "Introduction to Network Programming", were designed by contractors.

TECHNICAL TEAM

The Info Share program provides for consolidated planning, acquisition, and management of the technical infrastructure that supports the Info Share agencies information processing. The Technical team is responsible for the following procurement strategies that will provide short-term and long-term acquisitions of information resources.

Award multiple contracts for short-term hardware and software needs - Contracts were awarded in September 1993 to meet the Info Share agencies' immediate needs in the following areas: (1) personal computers and engineering workstations, (2) commercial-off-the-shelf (COTS) software; and (3) laser printers. These general purpose contracts were issued based upon combined requirements of the agencies.

Award Federal Information Processing (FIP) resources for long-term needs - Although this award is planned for fiscal year 1997 for acquisition of hardware, software, support services, and telecommunications to meet the long-term Info Share objectives, an 8(A) contract was awarded in September 1993 to Synex, Inc. to provide acquisition support services. This includes preparation of

technical studies and documentation support necessary for submitting the appropriate procurement documentation for a contract award.

IMPLEMENTATION TEAM

The Implementation team's mission is to identify, plan, implement, and manage the strategies necessary for a successful transition to and operation of the USDA Info Share program.

The first meeting of the core team was held in St. Louis, Missouri, July 19-23, 1993. During this meeting the team's charter, strategies, and initial budget estimates were developed. The team has developed work breakdown structures identifying tasks for each of the strategies and estimates of resources required by each of the tasks. Inter-task dependencies were identified and used to develop a project plan network diagram for each of the team's strategies.

## WORKING CAPITAL FUND

### Purpose Statement

The USDA Working Capital Fund (WCF) was established in legislation appropriating funds to the Department for FY 1944 codified at 7 U.S.C. 2235. The WCF is used to finance services provided to USDA and non-USDA agencies on a centralized basis. The costs of providing services to all WCF clients are recovered on the basis of the level of service each client receives. Services to non-USDA agencies reduce the share of fixed costs to users of WCF-supported services as the number of agencies sharing those costs expands.

Centrally managed operations provide efficient, economical services through economies of scale, extensive management attention, and high-level, regular fund control reviews. Users benefit from cost avoidances for administrative and support services. The Director, Office of Finance and Management (OFM), serves as WCF Comptroller, serving to monitor and supervise fund management activities. Seven USDA agencies: OFM, the Office of Operations (OO), the Office of Public Affairs (OPA), the Office of Information Resources Management (OIRM), the Office of the Executive Secretariat (OES), the Office of Personnel (OP), and the Chief Financial Officer (CFO) manage activities supported by the Fund.

OFM manages the National Finance Center (NFC), which provides financial and administrative management services to USDA agencies and more than 30 non-USDA entities.

OPA manages 2 WCF activities -- Video and Teleconferencing Services (V/T), and Design Center. V/T provides video production services to USDA agencies, and studio and production facilities for teleconferences in which USDA agencies participate. Design Center provides USDA agencies with exhibit design and visitor center support services.

OIRM manages 6 activity centers. Under the National Computer Center (NCC) umbrella organization, established in March 1991, there are three activity centers: NCC/Mainframe, located in Kansas City, Missouri; NCC/FTS-2000, located in Fort Collins, Colorado; and NCC/Applications Design, also in Fort Collins. NCC provides mainframe computing services, ADP training, and other ADP services to USDA agencies and a small number of non-USDA entities. NCC/FTS-2000 manages telecommunications services on behalf of USDA agencies. NCC/Applications Design supports systems and software development services to USDA agencies and non-USDA users. The Computer Services Unit provides ADP services to the Office of the Secretary and Departmental staff offices. The Telephone Services Operation is responsible for telephone equipment and system maintenance. Local Area Network operates and maintains the local area network system serving the Headquarters buildings complex.

OO provides personal property management, mail and reproduction management, and executive support services through 10 activity centers. Central Supply-Stores and Central Supply-Forms provide centralized supply and forms management, as well as warehousing and inventory services. Central Excess Property Operation provides Departmental agencies with excess and surplus property disposition services in addition to furniture rehabilitation services. Central Mail Unit, Copier Service, Duplicating Unit, and Automated Mailing List Service furnish USDA agencies with door-to-door mail pick up and delivery services, walk up and short order copier services, special order duplicating services, and updating and maintenance of the various Departmental mailing lists. Central Imprest Fund, Central Shipping and Receiving, and Agriculture Contract Automation System, offer a variety of executive support services to USDA agencies. Among these include cash disbursement for small purchases and travel, receipt and shipment of parcels, and maintenance of a procurement language software system.

OES provides correspondence management, tracking, and recordkeeping for the Department. OP manages the USDA Training Center which provides facilities and equipment for training USDA personnel in the Washington metropolitan area. Residing under the CFO is the Financial Information Systems Vision and Strategy Project, which has as its goal the development, enhancement, and coordination of Departmental and agency financial systems.

WORKING CAPITAL FUND
CLASSIFICATION BY OBJECTS
1993 and Estimated 1994 and 1995

| Personnel Compensation: | 1993 | 1994 | 1995 |
|---|---|---|---|
| Headquarters | $7,211,000 | $6,903,000 | $6,678,000 |
| Field | 68,018,000 | 64,540,000 | 61,956,000 |
| 11 Total personnel compensation | 75,229,000 | 71,443,000 | 68,634,000 |
| 12 Personnel benefits | 12,476,000 | 12,723,000 | 12,176,000 |
| 13 Benefits for former personnel | -14,000 | 119,000 | 114,000 |
| Total pers. comp. & benefits | 87,691,000 | 84,285,000 | 80,924,000 |
| Other Objects: | | | |
| 21 Travel | 1,325,000 | 1,475,000 | 1,429,000 |
| 22 Transportation of things | 1,005,000 | 850,000 | 800,000 |
| 23.1 Building rental | 4,469,000 | 8,755,000 | 8,801,000 |
| 23.2 Communications, utiliities and miscellaneous charges | 20,825,000 | 27,976,000 | 29,374,000 |
| 24 Printing | 1,374,000 | 1,365,000 | 1,298,000 |
| 25 Other services | 46,273,000 | 53,296,000 | 58,498,000 |
| 26 Supplies and materials | 6,722,000 | 7,736,000 | 7,110,000 |
| 31 Equipment | 13,194,000 | 21,797,000 | 22,113,000 |
| 43 Interest | 8,000 | 3,000 | 3,000 |
| Total other objects | 95,195,000 | 123,253,000 | 129,426,000 |
| Total | 182,886,000 | 207,538,000 | 210,350,000 |
| Position Data: | | | |
| Average Salary, ES positions | $107,000 | $110,000 | $110,000 |
| Average Salary, GM/GS positions | $28,000 | $30,000 | $31,000 |
| Average Grade, GM/GS positions | 8.3 | 8.5 | 8.5 |

## WORKING CAPITAL FUND

| | |
|---|---|
| Program Activity: | |
| Current Estimate, 1994 | $207,538,000 |
| Budget Estimate, 1995 | 210,350,000 |
| Increase over 1994 | +2,812,000 |

### SUMMARY OF INCREASES AND DECREASES
(Progam Activity)

| Items of Change | 1994 Estimated | Program Changes | 1995 Estimated |
|---|---|---|---|
| 1. Supply/Central Services | $20,959,000 | -$848,000 | $20,111,000 |
| CS Stores | 2,435,000 | -52,000 | 2,383,000 |
| CS Forms | 4,617,000 | -134,000 | 4,483,000 |
| CEPO | 1,904,000 | -36,000 | 1,868,000 |
| CSR | 415,000 | -16,000 | 399,000 |
| Imprest Fund | 244,000 | -10,000 | 234,000 |
| AGCAS | 270,000 | -14,000 | 256,000 |
| Central Mail | 3,471,000 | -135,000 | 3,336,000 |
| Duplicating Unit | 1,368,000 | -103,000 | 1,265,000 |
| Copier Service | 3,926,000 | -346,000 | 3,580,000 |
| DMLS | 215,000 | -8,000 | 207,000 |
| Executive Services | 1,940,000 | +12,000 | 1,952,000 |
| Training Center | 154,000 | -6,000 | 148,000 |
| 2. Video/Teleconferencing, Visual Design Services | 4,452,000 | +64,000 | 4,516,000 |
| Video/Teleconferencing | 1,773,000 | +36,000 | 1,809,000 |
| Design Center | 2,679,000 | +28,000 | 2,707,000 |
| 3. Finance & Management | 117,061,000 | +417,000 | 117,478,000 |
| NFC | 114,300,000 | -2,996,000 | 111,304,000 |
| Financial Information Systems | 2,761,000 | +3,413,000 | 6,174,000 |
| 4. ADP Services | 44,612,000 | +2,833,000 | 47,445,000 |
| NCC/Mainframe | 31,895,000 | +2,491,000 | 34,386,000 |
| NCC/NMS | 3,949,000 | +355,000 | 4,304,000 |
| NCC/AD | 4,820,000 | +19,000 | 4,839,000 |
| CSU | 1,281,000 | -73,000 | 1,208,000 |
| TSO | 1,110,000 | +52,000 | 1,162,000 |
| LAN | 1,557,000 | -11,000 | 1,546,000 |
| Recurring Operations | 187,084,000 | +2,466,000 | 189,550,000 |
| Capital Equipment | 20,454,000 | +346,000 | 20,800,000 |
| Total | 207,538,000 | +2,812,000 | 210,350,000 |

PROJECT STATEMENT
(On basis of program activity)

| Item of Change | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 1. Supply and Central Services | $19,057,000 | 207 | $20,959,000 | 213 | -$848,000(1) | $20,111,000 | 207 |
| CS Stores | 2,297,000 | 8 | 2,435,000 | 9 | -52,000 | 2,383,000 | 9 |
| CS Forms | 4,064,000 | 28 | 4,617,000 | 30 | -134,000 | 4,483,000 | 29 |
| CEPO | 1,733,000 | 12 | 1,904,000 | 12 | -36,000 | 1,868,000 | 12 |
| CSR | 390,000 | 1 | 415,000 | 1 | -16,000 | 399,000 | 1 |
| Imprest Fund | 259,000 | 4 | 244,000 | 5 | -10,000 | 234,000 | 4 |
| AGCAS | 257,000 | 2 | 270,000 | 2 | -14,000 | 256,000 | 2 |
| Central Mail | 3,490,000 | 92 | 3,471,000 | 87 | -135,000 | 3,336,000 | 84 |
| Duplicating Unit | 1,185,000 | 12 | 1,368,000 | 12 | -103,000 | 1,265,000 | 12 |
| Copier Service | 3,752,000 | 26 | 3,926,000 | 28 | -346,000 | 3,580,000 | 27 |
| DMLS | 181,000 | 3 | 215,000 | 3 | -8,000 | 207,000 | 3 |
| Executive Secretariat | 1,365,000 | 17 | 1,940,000 | 21 | +12,000 | 1,952,000 | 21 |
| Training Center | 84,000 | 1 | 154,000 | 3 | -6,000 | 148,000 | 3 |
| 2 Video/Tele. & Visual Design Services | 4,650,000 | 26 | 4,452,000 | 29 | +64,000(2) | 4,516,000 | 29 |
| Video/Teleconf. | 2,080,000 | 14 | 1,773,000 | 14 | +36,000 | 1,809,000 | 14 |
| Design Center | 2,570,000 | 12 | 2,679,000 | 15 | +28,000 | 2,707,000 | 15 |
| 3. Finance & Management | 106,498,000 | 1,535 | 117,061,000 | 1,506 | +417,000(3) | 117,478,000 | 1,451 |
| NFC | 106,489,000 | 1,535 | 114,300,000 | 1,506 | -2,996,000 | 111,304,000 | 1451 |
| Financial Info. Sys. | 9,000 | 0 | 2,761,000 | 0 | +3,413,000 | 6,174,000 | 0 |
| 4. ADP Services | 40,969,000 | 202 | 44,612,000 | 215 | +2,833,000(4) | 47,445,000 | 214 |
| NCC/MF | 31,063,000 | 139 | 31,895,000 | 131 | +2,491,000 | 34,386,000 | 127 |
| NCC/NMS | 3,624,000 | 22 | 3,949,000 | 28 | +355,000 | 4,304,000 | 30 |
| NCC/AD | 3,124,000 | 29 | 4,820,000 | 46 | +19,000 | 4,839,000 | 47 |
| CSU | 1,163,000 | 11 | 1,281,000 | 8 | -73,000 | 1,208,000 | 8 |
| TSO | 870,000 | 1 | 1,110,000 | 2 | +52,000 | 1,162,000 | 2 |
| LAN | 1,125,000 | 0 | 1,557,000 | 0 | -11000 | 1,546,000 | 0 |
| Recurring Operations | 171,174,000 | 1,969 | 187,084,000 | 1,963 | +2,466,000 | 189,550,000 | 1,901 |
| Capital Equipment | 11,712,000 | 0 | 20,454,000 | 0 | +346,000 | 20,800,000 | 0 |
| Total | 182,886,000 | 1,969 | 207,538,000 | 1,963 | +2,812,000 | 210,350,000 | 1,901 |

FUNDING FROM NON-USDA AGENCIES

(On basis of program activity)

| Item of Change | 1993 Actual | | 1994 Estimated | | Increase or Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | | Amount | Staff Years |
| 1. Supply and Central ervices | $1,967,000 | 0 | $2,219,000 | 0 | -$310,000 | $1,909,000 | 0 |
| 2 Video/Tele. & Visual Design Services . . . | 48,000 | 1 | 50,000 | 0 | +2,000 | 52,000 | 0 |
| 3. Finance & Management | 59,988,000 | 867 | 64,737,000 | 777 | -2,940,000 | 61,797,000 | 722 |
| 4. ADP Services | 805,000 | 0 | 344,000 | 0 | -344,000 | 0 | 0 |
| Total | 62,808,000 | 868 | 67,350,000 | 777 | -3,592,000 | 63,758,000 | 722 |

WORKING CAPITAL FUND

EXPLANATION OF PROGRAM

Authorized under Public Law 78-129, making appropriations to USDA for FY 1944 (7 U.S.C. 2235), the USDA Working Capital Fund finances services provided to USDA agencies on a centralized basis. Under the law, only activities approved by the Director of the Office of Management and Budget (OMB) may be carried out under the Fund. Centralization is recommended by the Department and approved by OMB when:

-- Centralization will result in cost savings due to:

- Economies of scale
- Reduced overhead
- Central cost-based management
- Coordination which avoids duplication of effort among agencies

-- Centralization offers other advantages such as:

- Improved services to agencies and to the public
- Availability of services to agencies which could not afford them except on a centralized basis
- Ability to replace equipment on a long-term basis through the use of depreciation charges to users

The Fund received an initial appropriation of $400,000 for FY 1944. Over the years, additional working capital has been made available through initial transfers into the Fund of activities meeting the above criteria and through Congressional appropriations and authorizations to receive growth capital from serviced USDA agencies. WCF operations are financed by charging user agencies the actual costs of providing required services. The following are services financed through the Fund:

Supply and Other Central Services. The Office of Operations manages the following services under this category: (a) central supply, which provides for the acquisition, receipt, storage, issuance, packing, and shipment of office and other supplies, blank forms, and miscellaneous materials for the Department and other Government agencies; (b) central mail services, which include operation of the USDA mail processing, messenger, and automated mailing list services; (c) central excess property, which coordinates receipt, rehabilitation, and distribution of personal property for the Department and other Government agencies; (d) central shipping and receiving services; (e) central imprest fund, which provides cash advances for small purchases and travel; (f) automated contract system used by agencies and staff offices to prepare procurement documents; and (g) copier and duplicating services which provide duplicating, reproducing,

binding, addressing and mailing, and short-order and walk-up copier stations for duplicating and xerographic production. The Office of the Executive Secretariat provides referral and correspondence control services for mail addressed to the Secretary, the immediate Office of the Secretary, and the Department. The Office of Personnel manages a Training Center that provides training facilities to agencies in the D.C. Metropolitan area.

Video and Teleconferencing, & Visual Design Services. These activities, managed by the Office of Public Affairs plan, design, and produce visual information materials, exhibits, art, and graphics materials for the Department and other Government agencies.

Finance and Management. The Office of Finance and Management's National Finance Center designs, develops, implements, and operates centralized administrative systems for the Department. Centralized payroll, personnel, voucher and vendor payments, billings and collections, property management, accounting, and financial recordkeeping systems are currently provided. It also produces external financial reports to Treasury and other agencies, and internal management reports for Departmental agencies. In addition, the National Finance Center provides financial and accounting services to a number of other Federal Departments through "cross-servicing" agreements and serves as recordkeeper for the Thrift Savings Plan System under the Federal Employee Retirement System. The Financial Information System Vision and Strategy project has the aim of coordinating, consolidating, and improving financial systems in the Department.

ADP Services. The Office of Information Resources Management provides a comprehensive range of ADP services through six activity centers. National Computer Center (NCC)/Mainframe provides mainframe computing services (information management, research and development, testing, and consulting). NCC/Network Management Services provides telecommunications network support. NCC/Applications Design provides full life-cycle development and maintenance of mainframe and distributed applications. The Computer Services Unit provides ADP support to the Office of the Secretary and Departmental staff offices. Telephone Services Operation serves as the focal point for acquisition, installation, movement, and maintenance of telephone lines and equipment for USDA agencies in the Washington, D.C. metropolitan area. Local Area Network operates and maintains USDA local area network cable plant management.

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A decrease of $848,000 for recurring operations of Supply and Other Central Services consisting of:

| | |
|---|---|
| Central Supply Stores | -$52,000 |
| Central Supply Forms | -134,000 |
| Central Excess Property | -36,000 |
| Central Shipping and Receiving | -16,000 |
| Central Imprest Fund | -10,000 |
| Agriculture Contract Automation System | -14,000 |
| Central Mail Unit | -135,000 |
| Duplicating Unit | -103,000 |
| Copier Service | -346,000 |
| Departmental Mailing List | -8,000 |
| Office of the Executive Secretariat | +12,000 |
| Training Center | -6,000 |
| Total | -$848,000 |

Need for Change. Reductions in this area are taken to support efforts to reduce costs for administrative efficiencies and a reduction in Federal employment.

Nature of Change. Reductions are taken in all expense categories in an effort to reduce administrative costs. Exceptions are cost estimates for GSA space, for which increases are necessary to comply with requirements to reimburse GSA at the full space utilization rate for space occupied, and depreciation on capital equipment. Reductions assume no increases in service workload, no system/service improvements, and no new system/service initiatives. In the Office of the Executive Secretariat, increases reflect costs associated with system improvements and expected demand. However, reductions were applied to this area as well to help offset increases associated with those improvements. Streamlining of operations in these activities will be accomplished by suspending system/service improvements, postponing or

cancelling new service/system initiatives, and suspension of requests for increases in services volumes. Labor costs will be reduced through a reduction of 6 FTEs from the FY 1994 level.

(2) An increase of $64,000 for recurring operations of Video and Teleconferencing, and Visual Design Services consisting of:

| | |
|---|---|
| Video and Teleconferencing Services | +$36,000 |
| Design Services | +28,000 |
| Total | +$64,000 |

Need for Change. Cost increases for Visual Design Services are expected to be less than inflation. Cost increases in Video and Teleconferencing are for enhancements in video production capability.

Nature of Change. Non-inflationary cost increases in Video and Teleconferencing Services reflect the need to purchase new equipment to improve reliability of service and contract support costs. All cost increases in Design Services are the result of personnel and other cost inflation. There is also a slight increase in Design Services depreciation costs for approved capital acquisitions.

(3) An increase of $417,000 for recurring operations of Finance and Management consisting of:

| | |
|---|---|
| National Finance Center | -$2,996,000 |
| Financial Information Systems | 3,413,000 |
| Total | +$417,000 |

Need for Change. Reductions in estimates for the National Finance Center are taken to support efforts to reduce costs for administrative efficiencies and a reduction in Federal employment. Costs for Financial Information Systems represent expenses in support of the Financial information system Vision and Strategy (FISVIS) project, which began in FY 1993. This project will address improvements in Departmental financial systems, including: integration and compatibility of financial systems; improved timeliness, consistency, accuracy, and reliability of financial information; elimination of unnecessary duplication of recordkeeping; better processes for reconciliation and data access; and improved methods and procedures for accountability and performance measurement.

Nature of Change. At the National Finance Center, reductions are taken in all expense categories in an effort to reduce administrative costs. Exceptions are cost estimates for GSA space, for which increases are necessary to comply with requirements to reimburse GSA at the full space utilization rate for space occupied, and the need to purchase new and replacement equipment. Reductions assume no increases in service workload, no system/service improvements, and no new system/service initiatives.

Cost increases in FY 1995 for FISVIS represent support for financial information system software development and implementation.

Streamlining of operations in these activities will be accomplished by suspending system/service improvements, postponing or cancelling new service/system initiatives, and suspension of requests for increases in services volumes. Labor costs will be reduced through a reduction of 55 FTEs from the FY 1994 level at the National Finance Center.

(4) A net increase of $2,833,000 for recurring operations of ADP systems consisting of:

| | |
|---|---|
| NCC/Mainframe | +$2,491,000 |
| NCC/Network Management Services | +355,000 |
| NCC/Applications Design | +19,000 |
| Computer Services Unit | -73,000 |
| Telephone Service Operations | +52,000 |
| Local Area Network | -11,000 |
| Total | +$2,833,000 |

Need for Change. ADP hardware and software costs are the principal reasons for ADP system cost increases. Users' increasing need for telecommunications and mainframe ADP support services require improvements in technological and management efficiency. There are offsetting reductions taken in all activities to support efforts to reduce costs for administrative efficiencies and a reduction in Federal employment.

Nature of Change. Increases in mainframe ADP services reflect increases in lease costs for ADP hardware and software. In Network Management Services, cost increases reflect depreciation costs associated with approved capital acquisitions. Local Area Network will incur costs in support of an upgrade of the Departmental network to improve access by users to the system and compatibility with the increasing number of user-managed networks. Telephone Service Operation cost increases are the result of the need to purchase new and replacement equipment. Most of the increases assume no increases in workload, no system/service improvements, and no new system/service initiatives. This is the result of reductions taken in all expense categories in all activity centers to support efforts to reduce costs of administrative services. Streamlining of operations in these activities will be accomplished by suspending system/service improvements, postponing or cancelling new service/system initiatives, and suspension of requests for increases in services volumes. Labor costs will be reduced through a reduction of 1 FTE from the FY 1994 level.

(5) An expenditure of $20,800,000 for capital acquisitions in FY 1995 ($20,454,000 in FY 1994):

(a) Capital acquisitions for Supply and Other Central Services of $948,000.

| | |
|---|---|
| Central Supply Stores | $0 |
| Central Supply Forms | 30,000 |
| Central Excess Property | 0 |
| Central Shipping and Receiving | 0 |
| Central Imprest Fund | 0 |
| Agriculture Contract Automation System | 0 |
| Central Mail Unit | 15,000 |
| Duplicating Unit | 8,000 |
| Copier Service | 825,000 |
| Departmental Mailing List | 0 |
| Office of the Executive Secretariat | 70,000 |
| Training Center | 0 |
| Total | $948,000 |

Need for Change. All expenditures will be in mail and reproduction management services, forms warehousing, and executive correspondence management and tracking.

Nature of Change. Acquisitions in mail and reproduction management services will replace old equipment (some items as much as 10 years old), taking advantage of newer technology in mail distribution, large and medium volume copiers, and duplicating equipment. Acquisitions will assist these centers in responding to expected demand for such services. The Office of the Executive Secretariat will procure equipment to replace aging personal computers and printers in an effort to improve tracking of executive correspondence.

(b) Capital acquisitions for Video and Teleconferencing, and Visual Design Services of $255,000.

| | |
|---|---|
| Video and Teleconferencing Services | $205,000 |
| Visual Design Services | 50,000 |
| Total | $255,000 |

Need for Change. Most of the FY 1995 amount is in response to the need to improve the quality and reliability of services in video and teleconferencing services. Design services will realize improvements in production and graphics capabilities through its procurements.

Nature of Change. Acquisitions in video and teleconferencing services include video editing and mastering equipment to improve the quality of video images and speed of assembly of finished video features. Further, production equipment upgrades will improve the quality and reliability of service to USDA agencies. Design Center purchases will replace outmoded, unreliable equipment and improve the quality of its services.

(c) Capital acquisitions for Finance and Management of $11,233,000.

| | |
|---|---|
| National Finance Center | $11,233,000 |
| Financial Information Systems | 0 |
| Total | $11,233,000 |

Need for Change. Purchases are needed for CPU upgrades to respond to increases in service demand, improve data telecommunications capabilities, and other ADP-related needs.

Nature of Change. Upgrading mainframe computer operations (CPU upgrade, associated software improvements) to respond to expected demand and avoid service interruptions will make up about half of total acquisitions. The remainder will be spent on peripheral, file library robotics, network integrated mailing/printing, and other ADP-related equipment.

(d) Capital acquisitions for ADP Services of $8,364,000.

| | |
|---|---|
| NCC/Mainframe | $5,073,000 |
| NCC/Network Management Services | 1,402,000 |
| NCC/Applications Design | 38,000 |
| Computer Services Unit | 70,000 |
| Telephone Service Operations | 111,000 |
| Local Area Network | 1,670,000 |
| Total | $8,364,000 |

Need for Change. Most of the FY 1995 amount (61 percent) will be devoted to mainframe computer services. Acquisitions in ADP Services will address mainframe equipment and support needs, personal computer and network equipment needs, and telecommunications support requirements.

Nature of Change. Mainframe computer and system operations will benefit from software acquisitions and direct access storage device equipment acquisitions, allowing users improved direct data access and more effective software applications use. Telecommunications and teleconferencing services will also be improved through related equipment acquisitions, allowing users to take advantage of enhancements in network and data communications technologies. The Local Area Network deserves special mention in that the amount is for acquisitions related to a major system upgrade ("intelligent hubs") that will improve user access to the Departmental network and enhance compatibility between the Departmental network and user-operated local area networks.

WORKING CAPITAL FUND
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Colorado | $7,272,000 | 51 | $9,172,000 | 74 | $10,583,000 | 77 |
| Washington, D.C. | 20,114,000 | 204 | 26,223,000 | 209 | 29,008,000 | 204 |
| Louisiana | 112,271,000 | 1,527 | 125,459,000 | 1,498 | 122,536,00 | 1,443 |
| Maryland | 8,251,000 | 48 | 8,956,000 | 51 | 8,764,000 | 50 |
| Missouri | 34,978,000 | 139 | 37,728,000 | 131 | 39,459,000 | 127 |
| Total Available or Estimate | 182,886,000 | 1,969 | 207,538,000 | 1,963 | 210,350,000 | 1,901 |

WORKING CAPITAL FUND

STATUS OF PROGRAM

Current activities and selected examples of recent progress are outlined below:

SUPPLY AND OTHER CENTRAL SERVICES

Current Activities:

Activity centers in this area managed by the Office of Operations (OO) continue to aggressively implement management reforms to hold down costs. Ongoing efforts are focused on two principal areas -- improvements in warehouse management and automated inventory management. Warehousing activities of Central Supply-Stores (except self-service store), Central Supply-Forms, and Central Excess Property Operation are physically consolidated at a single facility in Landover, Maryland. This holds down administrative support costs of these operations. Also, automation of the physical inventory for these activity centers provides a more accurate accounting and inventory of the stock items on hand in the warehouse facility. The Office of the Executive Secretariat (OES) was established in FY 1992 to improve the efficiency and effectiveness of executive correspondence management. It is continuing to improve the automation of correspondence management functions so that USDA can respond more effectively to inquiries and the information needs of the agricultural community. The USDA Training Center was approved by the Director of the Office of Management and Budget as a WCF activity (required under 7 U.S.C. 2235) in January 1993. It provides facilities and materials for training of Washington D.C. metropolitan area personnel.

Selected Examples of Recent Progress:

1. The enhanced version of the software applications used by the Agriculture Contract Automation System has been tested and accepted. When released (first quarter, FY 1994), it will bring the system up to date with current technology, it will have local area network capability, it will have the capacity to be integrated with Windows, and it will have faster response time and be more user-friendly.

2. Copier Service has expanded services to agencies in eight locations outside of the immediate downtown D.C. buildings complex.

3. Reviews of copier volumes and equipment capabilities have resulted in relocations of equipment to improve utilization and achieve significant savings in copier maintenance costs.

4. Supported Departmental initiatives to use recycled materials by using recycled paper in all copier equipment.

5. Began an update of the Office of the Executive Secretariat procedures manual to reflect preferences of the Secretary, strengths and weaknesses of the USDA system and those of other departments and agencies.

VIDEO AND TELECONFERENCING & VISUAL DESIGN SERVICES

Current Activities:

Taking advantage of current technologies in desktop publishing and computer graphics remain two of the most rapidly expanding areas in visual design. Upgrading capabilities in these areas is a primary focus in Design Center. These technologies greatly enhance services in support of conferences, seminars, hearings, public meetings, interagency programs, and the like.

Expansion in teleconferencing service and applications of current video production technologies afford users promising cost efficiencies. These strategies allow users to avoid higher costs of travel while maintaining contact between agency headquarters offices and field offices, agricultural program clients, and the general public.

Selected Examples of Recent Progress:

1. The Video and Teleconferencing Division earned several recognitions for outstanding video production work:

- Council for International Non-Theatrical Events (CINE)/Golden Eagle Award for the USDA video titled, "Living with Wildlife," which reviews animal damage control approaches addressing the problem of wild animals and humans living in close proximity to each other.

- Columbus Film Video Festival/Honorable Mention awards were earned for two videos: "The Biggest Barrier" about handicapped access to the workplace, and "America 2000," concerning the potential threat to America's food supply by illegal importation of plant and food products.

- International Television Association (ITVA)/Special Merit Award for "America 2000."

2. The Video and Teleconferencing staff engineered eight hours of live coverage of "Outlook '93" agricultural outlook conference via direct feed to satellite so that participants in all 50 states could watch key presentations as they were made. All outlook sessions were carried live over the internal USDA video network.

3. Other satellite video conferences and telecasts included:

- Meeting of Vice President Al Gore and Secretary Mike Espy with USDA employees on April 7, 1993. The meeting was telecast live via satellite for national viewing by field staff, media, and others. Live comments from four sites around the nation were included in the telecast through a two-way audio link.

- Farmers Home Administration teleconference on August 12, 1993. A total of 6,245 participants viewed the training event about key provisions of the Certified Lender Program. Participants viewed this live-via-satellite training at 178 downlinking sites throughout the nation.

- Meeting of Secretary Mike Espy and USDA employees to discuss Departmental streamlining efforts. This meeting was linked by satellite for simultaneous viewing by USDA staff and media throughout the nation.

- The Video and Teleconferencing Division handled 2,515 audio conferences for USDA agencies and staff offices in FISCAL YEAR 1993. This is an increase of almost 500 conferences over last year's totals.

## NATIONAL FINANCE CENTER

Current Activities:

Efforts are continuing to integrate many National Finance Center (NFC) administrative and financial management systems as part of USDA's "Modern Administrative Processing (MAP)" strategy. The Department's MAP Program Office works closely with the NFC to implement the MAP strategy and to develop and bring on-line financial and administrative systems to benefit all USDA agencies. Simplified access and operation for agency users will mean improved service, enhanced system efficiency, and lower cost. The Financial Information Systems Vision and Strategy (FISVIS) project has been established to integrate, coordinate, and improve financial systems across the Department.

Selected Examples of Recent Progress:

1. NFC conducted a semiannual disaster recovery test at the Sungard Recovery Operations Center in Philadelphia, Pa. The objectives were to test and validate recovery procedures and backups for the Thrift Savings Plan System and the payroll/personnel System.

2. NFC completed a business process analysis of the Consolidated Review Program (CRP) that was used in the past to ensure compliance with OMB Circulars A-123, A-127, and A-130. The review recommended that existing CRP procedures be replaced with ongoing reviews that tie in with the Management Controls Manual that has been developed. An action plan to implement these recommendations is being developed.

3. As of October 1, 1993, 83 agencies had signed agreements to use the Direct Premium Remittance System. NFC processed 1,093 spouse equity accounts and 17,117 temporary continuations in the Month of September.

4. Experienced increases among USDA agencies in use of Direct Deposit/Electronic Funds Transfer. From September 1992 to September 1993, participation increased from 71 percent to 75 percent.

## AUTOMATED DATA PROCESSING SERVICES

Current Activities:

In a constantly changing technological and management environment for ADP services, the Office of Information Resources Management (OIRM) continues to adapt itself to meet users changing needs. The mainframe operations, telecommunications support, and applications design services under its umbrella National Computer Center structure continue to provide users with a comprehensive range of ADP operations, consultation, and training services. The result has been a decrease in unit costs of service for ADP activities managed with WCF support by OIRM.

Selected Examples of Recent Progress:

1. The Telephone Service Operations Directory Locator System was enhanced by installation of an electronic call distributor to process incoming calls in a more timely and efficient manner, the addition of a second locator operator to handle more locator calls and reduce waiting time, and upgraded automated systems.

2. Identified and eliminated excess telephone line inventory through the effective use of advanced telephone systems and close scrutiny of agency inventories.

3. Completed several enhancements to the Departmental voice mail network, including:

- Technical upgrade to network with subscribers in Rosslyn, Virginia; and Atlanta, Georgia.
- Reduction of 50 percent in the guest service mailbox rate for local service.
- Integrated more sites with the Departmental voice mail system. The Park Office center (Alexandria, Virginia) has been successfully integrated, and capital procurement money has been expended to purchase equipment for implementation of integrated voice mail service for offices at the New York Avenue (Washington, D.C.) location.

4. Completed classroom training for 462 USDA agency personnel and provided one-on-one local area network training for USDA executives.

5. The Local Area Network office network control console operators serviced 2,370 requests from Departmental LAN users.

6. The National Computer Center completed Phase 1 of the Plant Evaluation Automation System.

7. Worked with the Soil Conservation Service to develop a system to track review processes. A process to develop interim reports was completed. Work will continue with SCS to develop a permanent solution.

8. The National Computer Center completed acceptance testing for various components of the Timber Sales and Accounting System. Initial review processes were completed for other enhancements for this system.

9. Implemented the Weather Information Management System (WIMS) in April 1993. In the third quarter, WIMS was receiving approximately 10,000 observations daily from the Earth station in Boise, Idaho. Also, more than 830,000 weather observations, 116,000 nation fire danger rating calculations, and 11,000 forecasted weather observations were recorded.

10. A "hot site" exercise of disaster recovery plans was conducted on June 21, 1993. This effort demonstrated National Computer Center ability to recover multiple logical partitions and gave customer agencies an opportunity to test their respective backup and recovery procedures.

AGRICULTURE BUILDINGS AND FACILITIES
CLASSIFICATION BY OBJECTS
1993 and Estimated 1994 and 1995

| Personnel Compensation: | | 1993 | 1994 | 1995 |
|---|---|---|---|---|
| Headquarters | | $3,711,087 | $4,492,000 | $4,533,000 |
| 11 | Total personnel compensation | 3,711,087 | 4,492,000 | 4,533,000 |
| 12 | Personnel benefits | 693,427 | 809,000 | 817,000 |
| 13 | Benefits for former personnel | 1,943 | 4,000 | 4,000 |
| Total pers. comp. & benefits | | 4,406,457 | 5,305,000 | 5,354,000 |
| Other Objects: | | | | |
| 21 | Travel | 19,658 | 25,000 | 26,000 |
| 22 | Transportation of things | 3,216 | 5,000 | 5,000 |
| 23.1 | Rental payments to GSA | 45,122,249 | 84,645,000 | 85,303,000 |
| 23.3 | Communications, utilities and miscellaneous charges | 5,301,261 | 5,439,000 | 5,397,000 |
| 24 | Printing | 35,457 | 35,000 | 36,000 |
| 25.2 | Other services | 19,372,415 | 38,503,000 | 20,918,000 |
| 26 | Supplies and materials | 574,009 | 629,000 | 621,000 |
| 31 | Equipment | 621,489 | 420,000 | 416,000 |
| 32 | Land and Structures | 176,705 | 143,000 | 20,727,000 |
| Total other objects | | 71,226,459 | 129,844,000 | 133,449,000 |
| Total direct obligations | | 75,632,916 | 135,149,000 | 138,803,000 |
| Position Data: | | | | |
| Average Salary, GM/GS positions | | $40,777 | $41,246 | $42,560 |
| Average Grade, GM/GS positions | | 10.42 | 10.67 | 10.71 |

AGRICULTURE BUILDINGS AND FACILITIES

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Agriculture Buildings and Facilities:

[Rental Payments (USDA)]

For payment of space rental and related costs pursuant to Public Law 92-313 for programs and activities of the Department of Agriculture which are included in this Act, [$135,503,000], $108,981,000 of which [$30,804,000] $18,678,000 shall be retained by the Department for the
1 operation, maintenance, and repair of Agriculture buildings [and for non-recurring repairs as determined by the Department of Agriculture, and an additional $19,700,000 shall be retained by the Department of Agriculture for renovation and repair of facilities at the Beltsville Agricultural Research Center]: Provided, That in the event an agency within the Department should require modification of space needs, the Secretary of Agriculture may transfer a share of that agency's appropriation made available by this Act to this appropriation, or may transfer a share of this appropriation to that agency's appropriation, but such transfers shall not exceed 5 per centum of the funds made available for space rental and related costs to or from this account.

2 In addition, for construction, repair, improvement, extension, alteration, and purchase of fixed equipment or facilities as necessary to carry out the programs of the Department, where not otherwise provided, $29,822,000 to remain available until expended; making a total appropriation of $138,803,000.

The first change eliminates language that allows USDA to retain funds for non-recurring repairs. Funding for these repairs will no longer be required if the strategic space plan is implemented. It also proposes deletion of the language included in the FY 1994 Act, authorizing renovation and repair of facilities at Beltsville Agricultural Research Center.

The second change includes language for construction of new space, repairs and alteration of existing space, purchase of fixed equipment, and operation of facilities for the Department of Agriculture.

## AGRICULTURE BUILDINGS AND FACILITIES

| | |
|---|---|
| Appropriations Act, 1994 | $135,503,000 |
| Budget Estimate, 1995 | 138,803,000 |
| Increase in Appropriation | +3,300,000 |

| | | |
|---|---|---|
| Adjustments in 1994: | | |
| Appropriations Act, 1994 | $135,503,000 | |
| Funds transferred to other agencies for leases transferred from GSA and moves out of GSA space 1/ | -354,007 | |
| Adjusted Base for 1994 | | 135.148,993 |
| Budget Estimate, 1995 | | 138,803,000 |
| Increase over adjusted 1994 | | +3,654,007 |

1/ Transfers to other agencies are: Soil Conservation Service ($245,467) and the National Agricultural Statistics Service ($108,540).

SUMMARY OF INCREASES AND DECREASES
(On basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Rental Payments to GSA | $84,644,993 | -- | +$5,658,007 | $90,303,000 |
| BARC Modernization | 19,700,000 | -- | -19,700,000 | -- |
| Building Operations and Maintenance | 30,804,000 | +$49,000 | -12,175,000 | 18,678,000 |
| Strategic Space Plan | -- | -- | +29,822,000 | 29,822,000 |
| Total Available | 135,148,993 | +49,000 | +3,605,007 | 138,803,000 |

PROJECT STATEMENT
(On basis of adjusted appropriation)

| Item of Change | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 1. Rental Payments | $49,932,916 | -- | $84,644,993 | -- | +$5,658,007 | $90,303,000 | -- |
| 2. BARC Modernization | -- | -- | 19,700,000 | -- | -19,700,000 | -- | -- |
| 3. Building Operations & Maintenance | 25,656,396 | 86 | 30,804,000 | 87 | -12,126,000 | 18,678,000 | 84 |
| 4. Strategic Space Plan | -- | | -- | | +29,822,000 | 29,822,000 | -- |
| Unobligated balance | 43,604 | | | | | | |
| Total, available or estimate | 75,632,916 | 86 | 135,148,993 | 87 | 3,654,007(1) | 138,803,000 | 84 |
| Transfer to: | | | | | | | |
| SCS | 413,450 | -- | 245,467 | -- | | | |
| FmHA | 110,489 | -- | -- | -- | | | |
| NASS | 46,145 | -- | 108,540 | -- | | | |
| Total, Transfers | +570,084 | -- | +354,007 | -- | | | |
| Total, Appropriation | 76,203,000 | 86 | 135,503,000 | 87 | | | |

## EXPLANATION OF PROGRAM

This appropriation provides funding for the following activities:

Rental Payments to GSA. The fiscal year 1983 Agriculture Appropriations Act (P.L. 97-370) consolidated most of the Department's rental payments to the General Services Administration (GSA) into a single appropriation. This activity does not provide funding to cover space costs incurred in other funding areas such as trust funds, the Working Capital Fund, and other non-appropriated funds. The amount in this account represents the appropriated portion of the total Departmental charges for rent payments to the GSA for all agencies and staff offices of the Department except the Forest Service.

Beltsville Agricultural Research Center Modernization. The Beltsville Agricultural Research Center (BARC), established in 1910 in Beltsville, Maryland, is the Agricultural Research Service's (ARS) largest laboratory. About 77 percent of BARC's laboratory space was built before 1943, making it more than 50 years old. In 1988, ARS proposed a 10-year program to modernize BARC's laboratory facilities. The Modernization Program will renovate many of BARC's original buildings and cluster related research programs in larger laboratory buildings to encourage increased interactions between researchers. The 1994 appropriation will enable ARS to continue the vigorous implementation of the BARC modernization plan. Prior to FY 1994, Congress provided funding for BARC's renovation in the ARS Buildings and Facilities Appropriation.

Building Operations and Maintenance. On October 1, 1984, GSA delegated the operations and maintenance functions for the buildings in the D.C. complex to the Department. This activity provides Departmental staff and support services to operate, maintain, and repair the buildings in the D.C. complex. In addition, the appropriation provides for the retention of funds by USDA for non-recurring repairs. GSA retains responsibility for major non-recurring repairs. Since 1989 when the GSA delegation expired, USDA has been responsible for managing, operating, maintaining, repairing, and improving the Headquarters Complex, which encompasses 14.1 acres of ground and 4 buildings containing approximately 3 million square feet of space occupied by approximately 8,000 employees.

Strategic Space Plan. The U.S. Department of Agriculture (USDA) Headquarters staff is presently housed in a four-building government-owned complex in downtown Washington, D.C. and in leased buildings in the metropolitan Washington area. A plan is being developed to improve the delivery of USDA programs to the American people, including streamlining the USDA organization. A high priority goal in the Secretary's plan is to improve the operation and effectiveness of the USDA Headquarters in Washington. To implement this goal, a strategy for efficient re-allocation of space to house the restructured Headquarters agencies in modern and safe facilities has been proposed. This USDA Strategic Space Plan will correct serious problems USDA has faced in its facility program, including the inefficiencies of operating out of scattered leased facilities and serious safety hazards which exist in the huge Agriculture South Building.

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A net increase of $3,654,007 composed of the following:

(a) A net increase of $5,658,007 in rental payments.

Need for Change. In fiscal year 1995, the Department will assume enhanced management of its Headquarters Complex, including both the day-to-day management of the facility and the responsibility for non-recurring repairs in major renovation and construction as needed. This is in keeping with the National Performance Review recommendation that GSA "empower" Federal agencies "to choose among competing real estate mangement enterprises...." Since USDA will be assuming responsibility for major repairs and renovations, its rental payment to the GSA will not include payment for these buildings. However, estimated rental payments for all other USDA facilities are being fully funded.

Nature of Change. This increase would allow USDA to pay GSA 100 percent of the cost of rent and related services for its space inventory. The request would fund non-Headquarters Complex space in the Washington Metropolitan Area ($32,825,000) and other leased space nation-wide ($57,478.000).

(b) A reduction of $19,700,000 for renovation and repair at the Beltsville Agricultural Research Center.

Need for Change. The request for fiscal year 1995 eliminates $19,700,000 appropriated in fiscal 1994 for renovation and repair of facilities of the Beltsville Agricultural Research Center. The

Congress added language to the fiscal 1994 appropriation that permitted USDA to retain funds for this purpose, thereby insuring that the ARS laboratory modernization program at Beltsville would continue without serious unplanned disruptions to other ongoing USDA programs. In fiscal year 1995, funding for laboratory modernization has been proposed in the ARS Buildings and Facilities Appropriation, which funded the modernization program prior to fiscal year 1994.

Nature of Change. Funding provided in fiscal year 1994 is no longer needed in this appropriation for the Beltsville Agricultural Research Center modernizaton program.

(c) A net decrease of $12,126,000 for building operations and maintenance composed of the following:

(1) An increase of $49,000 for pay increases.

(2) An increase of $64,000 for promotions, within grades, and increases in benefits.

Need for Change. Funds are requested for pay-related increases: Specifically, $29,000 for promotions and within grades, and $35,000 for increases in worker's compensation and the Federal Employee Retirement System (FERS). These increases will provide for pay-related increases without reducing funds for essential services, such as lighting, heating, and cooling.

Nature of Change. This increase will cover increased pay and benefits costs.

(3) An increase of $534,000 for operating cost increases.

Need for Change. This increase is necessary to meet rising costs for operating and maintaining the Headquarters Complex.

Nature of Change. These funds will cover increases associated with utility contracts for steam, chilled water, and electricity, as well as architectural and design contracts. This increase will also cover operating cost increases associated with providing central Departmental services, such as mail delivery, central supplies, and NFC services.

(4) An increase of $457,000 for the Fair Labor and Service Contract Acts.

Need for Change. The increase will cover yearly pricing adjustments required by the Fair Labor Standards Act and the Services Contract Act, as well as other costs that will increase when building operations and maintenance contracts are renewed.

Nature of Change. This increase will be used in payment of contracts for service and will permit continuation of the fiscal year 1994 level of activity for USDA occupied space in the Washington, D.C. complex.

(5) A decrease of $834,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $834,000.

Nature of Change. In order to achieve these savings, this activity will reduce discretionary expenses by $834,000 in the FY 1995, in areas such as travel and transportation of persons, communications, utilities, printing and reproduction services, contracts for equipment maintenance, training, other services, supplies, and equipment purchases.

(6) A decrease of $101,000 for a reduction in Federal employment costs.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, this activity is reducing employment from the FY 1993 base by 3 per cent.

Nature of Change. To achieve the reduction, this activity will streamline its operations. The total reduction in personnel costs amounts to $101,000.

(7) A decrease of $12,295,000 for deferred building repairs and replacements.

Need for Change. The South Building Modernization will restore or replace structures and systems in the South Building. Repairs and replacements previously scheduled for fiscal year 1995 will be incorporated into the modernization plan.

Nature of Change. Service contract, repair, and project costs will be reduced.

(d) An increase of $29,822,000 for the strategic space plan consists of:

(1) An increase of $20,587,000 to construct an office facility at the Agricultural Research Center at Beltsville, Maryland.

Need for Change. USDA staff is housed in a four building complex in downtown Washington, D.C., and in numerous leased buildings throughout the metropolitan area. Constructing an office complex on USDA-owned land will allow consolidation of agencies currently occupying leased space and facilitate both the Secretary's reorganization plan and the Department's efforts to streamline.

It has been determined that if the Beltsville facility is started in fiscal year 1995, the process of modernizing the South Building could be started by relocating a group of agencies out of the South Building and leased buildings, and consolidating them into the Beltsville facility. The Beltsville facility would consist of about 350,000 gross square feet of space. The number of buildings would be determined based on the size and space requirements of the agencies to be consolidated into the Beltsville facility. At an estimated two-year construction cost of $40,587,000, the construction will have paid for itself within five years due to avoidance of leasing costs for temporary housing and leased space. By contruction of the office complex at Beltsville and the renovation of the South Building, USDA will be able to eliminate its need for leased office space in the Washington Metropolitan Area. It is estimated that when both projects are completed USDA will save over $39,000,000 each year in rent for leased space.

Nature of Change. The requested funding will be used for site selection, planning, design, construction, and other necessary expenses of the office facility and will remain available until expended.

(2) An increase of $9,235,000 to design a modernization program for the South Building.

Need for Change. The South Building is over 50 years old and is in dire need of repair and rejuvenation to make it safe, efficient, and functional. As the building continues to age, operations, repair, and maintenance costs are increasing, as is the likelihood of a major systems failure. Modernization is essential to avoid the accelerated deterioration of the building and its major building systems. The modernization will eliminate life safety problems, air quality problems, and accessibility violations. These system improvements include a new fire alarm system, fire safety zones, protected egress corridors, protected air return systems, upgraded electrical systems in compliance with codes, and air quality control systems. It also will ensure that power and telecommunications systems can support current and future technological advances in automated data processing systems. A modernization plan has been developed to provide a safe, dependable, cost-effective facility that will provide space for USDA programs into the next century. Modernization will allow USDA to consolidate an additional 1,800 employees into the facility which will eliminate the need for leased space in compliance with the Secretary's goal to consolidate and streamline USDA at two locations. The plan calls for implementing a renovation program over seven phases. Phase I of the South Building modernization program in fiscal year 1996 includes relocation and renovation and is based on completion of the Beltsville facility.

Nature of Change. Contracts will be awarded to obtain the necessary concept design for the entire project and complete design for the first phase of the renovation. The requested funding for this modernization program is to remain available until expended

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Washington, D.C. | $75,589,312 | 86 | $135,148,993 | 87 | $138,803,000 | 84 |
| Unobligated balance | 43,604 | -- | -- | -- | -- | -- |
| Total Available or Estimate | $75,632,916 | 86 | $135,148,993 | 87 | $138,803,000 | 84 |

STATUS OF PROGRAM

RENTAL PAYMENTS TO GSA

This account was established by the Agriculture, Rural Development and Related Agencies Appropriations Act of 1983 to finance the appropriated portion of the payment of the General Services Administration's fees for rental of leased space and related services to all USDA agencies except the Forest Service, which is funded in another appropriations bill.

Current Activities and Recent Progress:

1. GSA Controlled Space. USDA occupies nearly 4 million square feet in 18 leased buildings and 4 owned buildings in the Washington Metropolitan area. The Department is developing a Long Range Strategic Space Plan designed to reduce agency fragmentation and duplication of administrative support requirements. The plan will also include a reduction in GSA leased space that coincides with staffing reductions required by the President's Government Downsizing Initiative.

2. Beltsville Agricultural Research Center Modernization, $19.7 million. The Beltsville Agricultural Research Center (BARC), established in 1910 in Beltsville, Maryland, is the Agricultural Research Service's (ARS) largest laboratory. About 77 percent of BARC's laboratory space was built before 1943, making it more than 50 years old. In 1988, ARS proposed a 10-year program to modernize BARC's laboratory facilities. The Modernization Program will renovate many of BARC's original buildings and cluster related research programs in larger laboratory buildings to encourage increased interactions between researchers. The 1994 appropriation will enable ARS to continue the vigorous implementation of the BARC modernization plan. The following projects will be undertaken with the funds made available in fiscal year 1994:

- Renovation of Building 001 - This building, when renovated, will house three laboratories currently located in separate buildings --- the Pesticide Degradation Laboratory, the Soil Microbial Systems Laboratory, and the Weed Science Laboratory.
- Upgrade of the BARC-West Electrical Distribution System.
- Upgrade of the BARC-East Water Distribution System.
- Planning and design of new Animal Parasitology Institute and renovation of Building 004.

BUILDING OPERATIONS AND MAINTENANCE

Since October 1, 1984, USDA has maintained and operated the Washington, D.C. Headquarters Complex. The four building complex, which is located on the south side of the mall, is composed of historic buildings varying in age from 57 to 114 years. The complex is the focal point for carrying out USDA's mission.

Because these facilities were allowed to deteriorate under previous management strategies and funding limitations prior to fiscal year 1985, USDA began a maintenance program to repair, improve, and restore the facilities. During fiscal year 1993, approximately $12.3 million of USDA funds were used for repairs and improvements. $5.3 million for utilities, $3.7 million for cleaning and maintenance, and $9.4 million for support activities. A major effort was undertaken to upgrade mechanical and electrical systems, improve environmental quality, and conserve energy. In fiscal year 1994, USDA will continue implementing its plan to correct the serious building deterioration. This effort will maintain or restore the integrity of the buildings in the Headquarters complex, and keep them safe and operational until the proposed major renovation of the South Building is undertaken and accomplished.

USDA also has continued the development of a plan to consolidate agencies which are currently occupying expensive leased space in the Washington, D.C. area. This plan combines the proposed renovation of the South Building with the construction of a new office complex on government-owned land in Beltsville, Maryland. The plan would provide the framework for improving the operations of the Department, reducing operating and rental costs, and more effectively serving the American people.

Current Activities and Recent Progress:

1. Window Restoration. USDA is continuing its program to restore approximately 4,600 windows in the South Building that had been allowed to deteriorate over 50 years. Between fiscal years 1988 and 1992, all the windows on the main facades and the windows in Courts 1, 2, and 4 were restored. In fiscal year 1993 a contract to restore the windows in Court 5 was awarded. The restoration of Court 3 is planned for award in fiscal year 1994 and Court 6 will be planned in fiscal year 1994 or 1995 depending on available funds. The restoration of the windows in the Administration Building was awarded in fiscal year 1992 and is currently under construction with completion scheduled in late 1994.

2. Environmental Quality Program. The safety and health of the occupants of the Headquarters complex is a major concern. Activities in the area of environmental safety and health include:

(a) Asbestos Abatement. Under the continuing asbestos abatement program, a major contract to abate asbestos in the South Building, Phase V, was awarded in fiscal year 1993.

(b) Air Quality. An $865,000 contract to upgrade the air quality in a portion of the South Building was awarded in fiscal year 1993. This project cleaned the room induction units and air handlers on the southern exposure of the South Building. A contract was also awarded for the Annex Building, at a cost of $78,900. This project upgraded the air handling filtration system.

(c) Drinking Water System. A contract was awarded to replace an old drinking water chiller and deteriorated water piping serving the South Building, at a cost of $294,600.

(d) CFC Modifications. In response to the Clean Air Act and the Montreal Protocol, USDA awarded a contract for $134,210 to modify various mechanical equipment rooms to accommodate substitute refrigerants being used to replace chloro-flouro-carbon (CFC) type refrigerants.

3. Electrical Improvements. In fiscal year 1993, the replacement of network protectors in all transformer vaults in the complex was completed, as was the switchgear replacement in vaults 4 and 5. Contracts awarded for electrical system improvement included emergency lights in the South Building, and the upgrade of switchgear vaults 2 and 17. Each of these projects replaces antiquated equipment, increases reliability of the electrical system, and corrects fire safety hazards.

4. Energy Conservation. In fiscal year 1993 a proto-type project for replacement of corridor lights in the Administration Building with energy efficient lights was completed. Contracts were awarded in fiscal year 1993 to replace all of the office lighting in the Administration Building, and in Phase I of the South Building, which includes wing 6.

## ADVISORY COMMITTEES

### Purpose Statement

The Federal Advisory Committee Act (P.L. 92-463) was passed in 1972 to recognize that committees and similar groups provide a useful and beneficial means of furnishing expert advice to officers of the Federal Government. The Assistant Secretary for Administration is the principal Department Officer responsible for performing functions and coordinating activities of the Act.

The Agriculture, Rural Development and Related Agencies Appropriations Act of 1983 consolidated all USDA advisory committee funds, except those in the Forest Service and those paid from user fees, in a single appropriation.

ADVISORY COMMITTEES

Available Funds and Staff-Years
1993 Actual and Estimated 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| USDA Advisory Committees . . | $952,000 | -- | $940,000 | -- | $977,000 | -- |
| Total, Advisory Committees . . | 952,000 | -- | 940,000 | -- | 977,000 | -- |

CLASSIFICATION BY OBJECTS
1993 and Estimated 1994 and 1995

| Personnel Compensation: a/ | 1993 | 1994 | 1995 |
|---|---|---|---|
| 11 Total personnel compensation . . . . . | $427,307 | $475,000 | $485,000 |
| 12 Personnel benefits . . . . . | 86,961 | 99,000 | 101,000 |
| Total pers. comp. & benefits . . . . . | 514,268 | 574,000 | 586,000 |
| Other Objects: | | | |
| 21 Travel. . . . . | 254,457 | 214,000 | 216,000 |
| 22 Transportation of things . . . . . | 4,396 | 1,000 | 1,000 |
| 23.3 Communications, utiliities and miscellaneous charges . . . . . | 16,698 | 10,000 | 10,000 |
| 24 Printing. . . . . | 27,952 | 30,000 | 31,000 |
| 25.3 Purchase of goods and services from other government accounts . . . . . | 60,568 | 94,000 | 115,000 |
| 26 Supplies and materials . . . . . | 5,794 | 16,000 | 17,000 |
| 31 Equipment . . . . . | 12,173 | 1,000 | 1,000 |
| Total other objects . . . . . | 382,038 | 366,000 | 391,000 |
| Total direct obligations . . . . . | 896,306 | 940,000 | 977,000 |

a/ USDA agencies are allowed under the Advisory Committee Act to obligate funds for portions of salaries and benefits for staff-time devoted to the support of these committees.

ADVISORY COMMITTEES

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Advisory Committees:

For necessary expenses for activities of advisory committees of the Department of Agriculture which are included in this Act, [$940,000] $977,000: Provided, that no other funds appropriated to the Department [of Agriculture] in this Act shall be available to the Department [of Agriculure] for support of activities of advisory committees: Provided that amounts provided under this head and provided to the Forest Service may be used for the expenses of the Forestry Research Advisory Council.

This change allows the Department of Interior to participate in cost sharing for the Forestry Research Advisory Committee. This is a Cooperative State Research Service (CSRS) committee which advises the Secretary on the Cooperative Forestry Research program and the Forest Service (FS) research program. The charter allows for CSRS and FS to provide support to the Council. However, Forest Service can only pay the travel expenses of the two Forest Service members. This is based on General Provision 611 in the Treasury, Postal Service, and General Government Appropriations Act of 1994, which states that no part of an appropriations act is available for interagency financing of boards, commissions, or committees which do not have prior specific approval for interagency funding.

## ADVISORY COMMITTEES

| | |
|---|---|
| Appropriations Act, 1994 | $940,000 |
| Budget Estimate, 1995 | 977,000 |
| Increase in Appropriation | +37,000 |

### SUMMARY OF INCREASES AND DECREASES
(on basis of appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| USDA Advisory Committees | $940,000 | -- | +$37,000 | $977,000 |

### PROJECT STATEMENT
(On basis of appropriation)

| Item of Change | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Advisory Committees. | $896,306 | -- | $940,000 | -- | +$37,000 | $977,000 | -- |
| Unobligated Balance . . . | 55,694 | -- | -- | -- | -- | -- | -- |
| Total, Appropriation | 952,000 | -- | 940,000 | -- | +37,000(1) | 977,000 | -- |

### EXPLANATION OF PROGRAM

The appropriation provides for financial support of all authorized Department of Agriculture advisory committee activities other than those included in the Forest Service or financed by user fees or other funds. The FY 1983 Agriculture, Rural Development and Related Agencies Appropriations Act provided a consolidated account for this purpose.

The Federal Advisory Committee Act (P.L. 92-463) was passed in 1972 to recognize that committees and similar groups provide a useful and beneficial means of furnishing expert advice to officers of the Federal Government. In establishing the Act, Congress declared that: committees should be restricted in number to only those essential to provide the necessary expert advice in specialty areas; uniform standards and procedures should govern the establishment, operation, administration and duration of the committees; and Congress should be kept informed of the number and cost of committees.

During fiscal year 1993, two statutory committees, the President's Council on Rural America and the Advisory Committee on Welfare Simplification and Coordination, completed their purpose and were terminated. During fiscal year 1994, in response to Executive Order 12838, Termination and Limitation of Federal Advisory Committees, the Department will terminate the National Arboretum Advisory Council and the Human Nutrition Board of Scientific Counselors and will not establish the Alternative Agriculture Research and Commercialization Center Advisory Committee. In addition, the ten current Agriculture Technical Advisory Committees for Trade (ATAC) will be terminated in January 1994, and six new ATAC committees will be chartered to take their place during 1994. The six new committees are: (1) Fruits, Vegetables and Processed Foods (2) Animal Products (3) Oilseeds, Grain and Feed (4) Tobacco, Cotton and Peanuts, (5) Sweeteners, and (6) a committee to be designated later.

Under the consolidated account, 30 committees are currently identified for fiscal year 1995. Fifteen are established by statute, and the remaining 15 are established by the Department, either independently, or upon the recommendation of Congress.

JUSTIFICATION OF INCREASES AND DECREASES

(1) A net increase of $37,000 for advisory committees ($940,000 available in 1994) consisting of:

(a) An increase of $49,000 for committee operations.

Need for Change. This increase is needed for anticipated activities within the advisory committees in assisting and advising the Secretary as the Department begins the restructuring of its programs and activities as part of "reinventing Government." Funds have been set aside in a reserve for this purpose and will be allocated once the specific needs for program expertise and advice are identified. Even with this increase, the committees do not exceed the target established by the Office of Management and Budget for this appropriation in fiscal year 1995.

Nature of Change. Funds are provided for anticipated committee activities. The work of these committees will be carried out within the advisory committees organization and funding structure.

(b) A decrease of $12,000 for administrative efficiency.

Need for Change. To implement the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline by 3 percent in FY 1994, 6 percent in FY 1995, 9 percent in FY 1996, and 14 percent in FY 1997, budget authority in 1995 will be reduced by $12,000.

Nature of Change. In order to achieve this savings, the advisory committees will reduce discretionary expenses by $12,000 in FY 1995, in areas such as supply purchases and printing and reproduction costs.

Estimates for the Department's Advisory Committees by major policy area follow.

USDA ADVISORY COMMITTEES

| Policy Area and Committee Title | 1993 Actual | 1994 Estimate | 1995 Estimate |
|---|---|---|---|
| **Office of the Secretary:** | | | |
| Alternative Agricultural Research & Commercial Ctr. | $27,112 | $-- | $-- |
| **Food and Consumer Services:** | | | |
| National Advisory Council on Maternal, Infant and Fetal Nutrition | 7,989 | 11,995 | 11,995 |
| National Advisory Council on Commodity Distribution | 25,255 | 26,265 | 26,265 |
| Dietary Guidelines Advisory Committee | -- | 21,822 | 21,822 |
| National Nutrition Monitoring Advisory Council | 19,900 | 19,649 | 19,649 |
| Advisory Committee on Welfare Simplification and Coordination | 49,978 | 5,000 | -- |
| Total | 103,122 | 84,731 | 79,731 |
| **Science and Education:** | | | |
| National Agricultural Research and Extension Users Advisory Board | 102,641 | 112,723 | 112,723 |
| National Arboretum Advisory Council | 12,587 | -- | -- |
| Human Nutrition Board of Scientific Counselors | 2,722 | -- | -- |
| Advisory Council for National Genetics Research | 13,844 | 14,811 | 14,811 |
| Science and Education National Research Intitiative | 4,805 | 20,000 | 20,000 |
| Animal Health Science Research Advisory Board | 900 | 15,309 | 15,309 |
| Forestry Research Advisory Council | 3,195 | 20,000 | 20,000 |
| Committee of Nine | 23,324 | 22,656 | 22,656 |
| Agriculture Biotechnology Research Advisory Committee | 56,647 | 46,526 | 46,526 |
| Joint Council on Food and Agriculture Sciences | 99,830 | 100,000 | 100,000 |
| Agriculture Science and Technology Review Board | 29,142 | 20,000 | 20,000 |
| Advisory Council on National Sustainable Agriculture | 19,981 | 22,305 | 22,305 |
| Total | 369,618 | 394,330 | 394,330 |
| **Marketing and Inspection Services:** | | | |
| Federal Grain Inspection Advisory Committee | 3,062 | 14,811 | 14,811 |
| National Advisory Committee on Meat & Poultry Inspection | 17,077 | 33,452 | 33,452 |
| National Advisory Committee on Microbiological Criteria for Foods | 65,960 | 52,114 | 52,114 |
| Advisory Committees on: | | | |
| Foreign Animal and Poultry Diseases | 27,765 | 29,870 | 29,870 |
| General Conference Committee of the National Poultry Improvement Plan | -- | 10,504 | 10,504 |
| National Animal Damage Control | -- | 9,969 | 9,969 |
| National Organics Standards Board | 43,090 | 45,071 | 45,071 |
| Total | 156,954 | 195,791 | 195,791 |

USDA ADVISORY COMMITTEES

| Policy Area and Committee Title | 1993 Actual | 1994 Estimate | 1995 Estimate |
|---|---|---|---|
| **International Affairs and Commodity Programs:** | | | |
| Agriculture Policy Advisory Committee for Trade | 14,848 | 18,404 | 18,404 |
| Technical Advisory Committee for Trade in: | | | |
| Cotton | 13,821 | 4,601 | -- |
| Fruits and Vegetables | 13,821 | 4,601 | -- |
| Grain and Feed | 14,847 | 4,601 | -- |
| Livestock and Livestock Products | 14,847 | 4,601 | -- |
| Oilseeds and Oilseed Products | 13,821 | 4,601 | -- |
| Poultry and Eggs | 13,821 | 4,601 | -- |
| Tobacco | 13,821 | 4,601 | -- |
| Dairy Products | 13,821 | 4,601 | -- |
| Sweeteners | 13,821 | 18,404 | 18,404 |
| Processed Food | 13,821 | 4,601 | -- |
| Fruits, Vegetables & Processed Foods | -- | 9,201 | 18,404 |
| Animal Products | -- | 9,201 | 18,404 |
| Oilseeds, Grain & Feed | -- | 9,202 | 18,403 |
| Tobacco, Cotton, & Peanuts | -- | 4,601 | 18,403 |
| To be designated 1/ | -- | 4,601 | 18,403 |
| Total | 155,110 | 115,023 | 128,825 |
| **Small Community and Rural Development:** | | | |
| President's Council on Rural America | 117 | -- | -- |
| **Economics:** | | | |
| National Agriculture of Cost of Product Standards Review Board | 34,273 | 37,911 | 37,911 |
| **Departmental Administration:** | | | |
| Citizen's Advisory Committee on Equal Opportunity | -- | 36,825 | 36,825 |
| Committee Management | 50,000 | -- | -- |
| Total | 50,000 | 36,825 | 36,825 |
| Reserve for Contingencies | -- | 75,389 | 103,587 |
| Total, Advisory Committees | 896,306 | 940,000 | 977,000 |

1/ One additional Agricultural Technical Advisory Comittee will be established during FY 1994 to provide representation for other U.S. agricultural products which are presently not represented by the other ATACs.

ADVISORY COMMITTEES

STATUS OF PROGRAM

The appropriation provides for direction and financial support of all authorized USDA Advisory Committee activities other than those included in the Forest Service and those financed from user fees. The Assistant Secretary for Administration is the Committee Management Officer and provides the policy guidance for the establishment and continuation of committees.

A table containing information on the authority and committee membership for each committee appears at the end of the committee activity descriptions.

OFFICE OF THE SECRETARY:

Alternative Agriculture Research and Commercialization Center

The Alternative Agriculture Research and Commercialization Center Advisory Council advises the Alternative Agriculture Research and Commercialization Board and Regional Centers on all applications for assistance for projects commercializing new nonfood and nonfeed products using agricultural commodities.

In keeping with the Executive Order to limit Federal Advisory Committees, it was decided to cease plans to establish the Council. It was agreed by Department officials and key Congressional supporters that the duties of the proposed Advisory Council were currently being conducted effectively in an informal manner.

FOOD AND CONSUMER SERVICES:

National Advisory Council on Maternal Infant and Fetal Nutrition

This Council makes a continuing study of the Special Supplemental Food Program for Women, Infants and Children (WIC) and related programs such as the Commodity Supplemental Food Program (CSFP) to determine how these programs may be improved. The Council is required by law to report its recommendations for changes to the President and Congress every two years.

No meeting was held during fiscal year 1993. A meeting was held October 20-22, 1993, in Alexandria, Virginia. The Council focused on the recommendations for the 1994 report to the President and Congress. No other meetings are scheduled for fiscal year 1994.

National Advisory Council on Commodity Distribution (NACCD)

This Council was established to advise the Secretary of Agriculture on the distribution of donated commodities to recipient agencies. It provides guidance on regulations and policy development on specifications.

The Council held one meeting in fiscal year 1993 in Arlington, Virginia. Eleven Council members attended. During this meeting, the Council developed its recommendations for the annual report to the Congress which is now in clearance. The report contained recommendations for refining commodity specifications, and improving purchase and delivery systems for donated foods. Other recommendations included a request to Congress to reinstate the 3 cents per meal commodity support for the School Breakfast Program, eliminate the Cash and Commodity Letter of Credit demonstration projects, and consider merging food assistance programs.

Dietary Guidelines Advisory Committee (DGAC)

The purpose of this Committee is to advise the Secretaries of Agriculture and Health and Human Services if a review of Dietary Guidelines for Americans is currently warranted based on advances in scientific knowledge and to advise the Secretaries of any recommended revision to the Guidelines. They were last revised in 1990.

In fiscal year 1993, a Federal Register notice invited nominations to the Dietary Guidelines Advisory Committee. Several public meetings will be held in fiscal year 1994 to formulate recommendations for revising the Guidelines in 1995.

National Nutrition Monitoring Advisory Council (NNMAC)

The National Nutrition Monitoring Advisory Council provides scientific and technical advice on the development and implementation of the coordinated program and comprehensive plan for the nutrition monitoring and related research program and advises the Secretaries of Agriculture and Health and Human Services.

The Council, which met on May 18-19, 1993, in Washington, D.C., invited speakers from several States to discuss nutrition monitoring programs and indicate their uses and needs for nutrition monitoring data. The Council drafted a report which should be issued to the Secretaries of USDA and DHHS in January 1994.

A meeting was held on October 19-20, 1993, to discuss and hear presentations from Federal and Congressional staff on the Federal budget process and priority-setting for the nutrition monitoring program. A second meeting is planned to continue addressing identified areas of focus, to develop and implement a mechanism to monitor the Ten-Year Comprehensive Plan, and to develop the Council's annual report of evaluation and recommendations to the Secretaries of USDA and DHHS.

Advisory Committee on Welfare Simplification and Coordination (ACWSC)

This Committee examined ways to improve the coordination of services to applicants and participants of the Food Stamp, Aid to Families with Dependent Children, Medicaid, and housing programs. The Committee reported its findings and recommendations to Congress and the Secretaries of Agriculture, Health and Human Services, and Housing and Urban Development by July 1, 1993.

The Committee met January 6-8, 1993, in Charlotte, North Carolina. Members of the Committee visited three innovative transitional housing sites and discussed the basic principles and recommendations to be included in the final report to Congress.

The final meeting was held March 11-12, 1993, in Wilmington, Delaware. The Committee was briefed on the Administration's welfare reform initiatives, and discussed the Electronic Benefit Transfer System (EBT) with Federal and state program officials. The Committee also visited Delaware's One-Stop Services and reviewed a draft of the final report.

Committee activity ended following the submission of its findings to Congress and the Administration in accordance with section 1778 of the Mickey Leland Memorial Domestic Hunger Relief Act (P.L. 101-624).

SCIENCE AND EDUCATION:

National Agricultural Research and Extension Users Advisory Board

This statutory committee is composed of 21 citizens reporting directly to the Secretary, the President, and the Congress on policies, programs, and planning in the food and agricultural sciences.

At the meeting on February 16-19, 1993, the UAB and Joint Council reviewed research, teaching, and extension initiatives and issues. Presentations were heard from agency heads and Colleges of Agricultural representatives about the President's fiscal year 1994 budget proposal for agricultural science and education programs. In a separate session, the Board identified and addressed five critical issues in research, teaching, and extension that will be the focus of the fiscal year 1995 report on program priorities. Eighteen UAB members attended the February meeting.

At the meeting held in Arkansas, Mississippi, and Tennessee on May 19-23, 1993, the UAB reviewed and assessed rural economic development programs that create business and quality of life opportunities for rural communities, developed recommendations on ways public agencies, private non-profit organizations, and for-profit businesses can collaborate to accomplish common goals that benefit rural areas; and wrote the Congressionally mandated report for the Secretary and Congress recommending science and education priorities for fiscal year 1995. Sixteen members attended this meeting.

The Board's July report, Science and Education Issues: A midyear report of citizen concerns and recommendations for American agricultural research, teaching, and extension, was distributed to 1,000 people.

Two UAB meetings will be conducted in fiscal year 1994. At the February meeting the Board will appraise the proposed fiscal year 1995 budget for Science and Education. At the May meeting the Board will

recommend program priorities for Science and Education in fiscal year 1996. The Board will combine this appraisal and priorities in one published report.

National Arboretum Advisory Council

This Council advises the Department on activities and long-range plans at the National Arboretum relating to tree and plant life research and education.

The annual meeting was held on May 24-25, 1993, at the National Arboretum, Washington, D.C. with fourteen Council members in attendance. There was a review of existing research and education programs and long-range plans to meet the needs of the user community and general public. A report was finalized but never sent to the Secretary. The committee was recommended for termination as part of the Executive Order to limit Federal advisory committees.

Human Nutrition Board of Scientific Counselors

The Board reviews research progress and educational activities of the USDA and reports to the Secretary on program direction, priorities, scope of activities, and quality of programs in human nutrition, research and education. There were no appointments or meetings in 1993. The committee was recommended for termination as part of the Executive Order to limit Federal advisory committees.

Science and Education National Research Initiative Advisory Committee

This Committee advises the Secretary of Agriculture concerning the administration of the Science and Education National Research Initiative to assure that research is carried out on the highest priority areas with the widest participation by qualified scientists. Members are scientists drawn from government, industry, and academe and are representatives of the diverse food and agricultural system.

No meetings were held in fiscal year 1993 because this Committee was being reestablished. It is currently anticipated that one meeting will be held in fiscal year 1994 when the charter is approved and new members are appointed.

Advisory Council for National Genetics Resources

This Council assesses national needs to identify high-priority programs for conserving, utilizing, and distributing plant genetic resources for the Secretary of Agriculture and officers of the National Association of State Universities and Land-Grant Colleges. The program's aim is to collect, preserve, and disseminate genetic material of importance to American food and agricultural production.

The Council met on December 15-16, 1992, and May 12-13, 1993, in Washington, D.C. It addressed policy issues relating to the Convention on Biological Diversity, exchange of genetic resources, sustainable agriculture, and material transfer agreements. The next meeting was held on December 15-16, 1993. The Council examined the use of material transfer agreements in the exchange of intellectual property, the maintenance of protected material within Federal facilities, and all aspects of genetic resources.

Animal Health Science Research Advisory Board

This Board advises the Secretary of Agriculture on the implementation and priorities of animal health research authorized by the National Agricultural Research, Extension and Teaching Policy Act of 1977, as amended. The Board did not meet during fiscal year 1993 because the charter had not been renewed or members appointed. The Board will meet once in fiscal year 1994.

Forestry Research Advisory Council

This Council advises the Secretary of Agriculture on national and institutional administration of the McIntire-Stennis Cooperative Forestry Research Program. Effective May 10, 1993, a revised charter expanded the Council's scope to include providing advice related to the Forest Service research program. The Secretary annually receives a report from this Council concerning regional and national research

planning and coordination of forestry research within the Federal and State agencies, forestry schools, and the forest industries.

Because of the revised Charter, the entire Council membership is being reconstituted. Candidates have been solicited from a broad range of groups concerned with forestry research, and nominations will be presented to the Secretary early in fiscal year 1994. No meetings were held in fiscal year 1993. One meeting is planned for fiscal year 1994.

## Committee of Nine

The Committee of Nine advises the Secretary of Agriculture in the conduct, management, and administration of cooperative regional research. The Committee develops and implements administrative procedures and recommends policies conducive to effective regional research; monitors the regional research program to insure adequate commitment and achievement by participants; reviews research priorities, and compares them with priorities in research projects in the regional program; and encourages development of agricultural research projects within or among regions to promote a sound and prosperous agricultural, rural life and welfare of the consumer.

Meetings were held May 11-13, 1993, and September 8-9, 1993, in Washington, D.C. An in-depth review and evaluation were made of projects in their first two years of operation. Accomplishments included development of a training video for administrative advisers, discussion of a proposed video or similar mechanism to further define the Regional Research Program and illustrate the value of Regional Research Funds, and proposed alternative management strategies for Regional Research which, if implemented, would streamline the evaluation process of new and revised proposals and secure a stronger commitment by State Agricultural Experiment Station directors for applicable resources.

There are approximately 168 regional research projects. In fiscal year 1993, the Committee reviewed and took action on 54 regional research proposals including: 11 new proposals, 23 revisions, 12 extensions, 6 deferrals, and 2 rejections.

Meetings are scheduled for May and September 1994.

## Agricultural Biotechnology Research Advisory Committee (ABRAC)

ABRAC advises the Secretary of Agriculture on policies, programs, operations, and activities associated with agricultural biotechnology research. It oversees the review of proposed research projects, evaluates the adequacy of draft proposals used by USDA in preparing environmental assessments of the above research projects, recommends necessary revisions to research guidelines and protocols, advises other Federal and State agencies on agricultural related research projects, and provides information to and maintains cognizance of Institutional Biosafety Committees (IBC's) to assure the availability of essential personnel to carry out oversight of agricultural related biotechnology functions.

One full ABRAC meeting and two ABRAC working group meetings were held in fiscal year 1993. The first working group meeting took place October 15, 1992, in Minneapolis, Minnesota. It was attended by nine members, four visitors, and one staff member. The Committee drafted performance standards for the ecological risk assessment of research involving genetically modified fish, crustaceans, and mollusks in aquatic research facilities such as tanks, raceways, and ponds.

The second working group meeting took place April 8, 1993, in Washington, D.C. It was attended by nine members, and eight staff members, who developed a science-based process that Federal regulators could use to determine the safety of food prepared from transgenic livestock animals.

The final ABRAC meeting on June 29-30, 1993, in Research Triangle Park, North Carolina was attended by 16 visitors, 12 members, and eight staff members. The meeting was immediately preceded by a two day conference on "Symbol, Substance, and Science: The Social Issues of Food Biotechnology." The Committee reviewed and revised the recommendations developed by the Transgenic Animal Working Group and discussed the results of the preceding food biotechnology conference.

In fiscal year 1994, ABRAC will conduct one full committee meeting in Arlington, Virginia and two or three small working group meetings.

## Joint Council on Food and Agricultural Sciences (JCFAS)

This statutory Council has the primary responsibility of bringing "about more effective research, extension, and teaching in the food and agriculture sciences in the United States by improving the planning and coordination of publicly and privately supported food and agriculture science activities and by relating Federal budget development and program management to these processes." The Council advises the Secretary and the Congress on priorities, policies, programs, planning, and coordination matters regarding the food and agriculture science and education system in the United States.

Two meetings were held by the Joint Council in fiscal year 1993. On February 16-17, 1993, in Washington, D.C., the Joint Council and UAB held their combined annual meeting. Activities at this meeting are discussed under the National Agricultural Research and Extension Users Advisory Board. Nineteen members attended.

The September 20-21, 1993, meeting was also held in Washington, D.C. The Council's agenda topics were food safety and nutrition programs, strategic planning, and agricultural science and education priorities and issues. Seventeen members attended this meeting.

During fiscal year 1993, the Council published the Fiscal Year 1995 Priorities for Research, Extension, and Higher Education. Also, 2,000 updated copies of the Council's June 1993 report, Five-Year Plan for the Food and Agricultural Sciences (Update), were disseminated.

## Agricultural Science and Technology Review Board

The Agricultural Science and Technology Review Board's purpose is to provide analysis on technologies so that legitimate priorities for funding and strategies can be made on emerging agricultural and environmental science issues. The Board is mandated to write a technology assessment report on current and emerging technologies that advance the six purposes of research as stated in Title 14 of the 1990 Farm Bill.

The Board met three times in fiscal year 1993. The first meeting was held December 8-9, 1992, in Washington, D.C. The Board identified current and emerging agricultural research and technology transfer initiatives, natural resources, nutrition, and the broad social, economic, and health consequences on urban and rural communities. Eleven members attended this meeting. The second meeting was held April 7-9, 1993 in Arkansas. The Board developed a matrix to evaluate the technologies identified at the previous meeting. Ten members attended this meeting. The final meeting was held July 14-16, 1993, in Washington, D.C. The Board further developed its assessment technology and used the matrix to assess six technologies. Ten members attended this meeting. The findings from the Board's three meetings were documented in the December 1993 report.

## National Sustainable Agriculture Advisory Council

The Advisory Council on National Sustainable Agriculture is authorized by the FACT Act of 1990 to recommend projects that should receive funding, promote programs, coordinate research and extension activities, and establish general procedures for awarding and administering funds under the Sustainable Agricultural Research and Education program. The Council also considers recommendations for improving programs and facilitates cooperation and integration between sustainable agricultural, water quality, integrated pest management, food safety, and other related programs.

The Council held one meeting on June 9-11, 1993, in Omaha, Nebraska. Three recommendations were presented at the meeting: 1) to hold a summit meeting of NSAAC and top USDA personnel, 2) to have all USDA agencies provide NSAAC with a baseline evaluation of funds spent on sustainable agriculture, and 3) to request that representatives from Integrated Pest Management, water quality, and food safety research and education activities attend the next meeting. Also, visits were made to a farm practicing sustainable agriculture and to the University of Nebraska-Lincoln Agricultural Research and Extension Station at Mead.

MARKETING AND INSPECTION SERVICES:

Federal Grain Inspection Service Advisory Committee

This Committee advises the Administrator of the Federal Grain Inspection Service (FGIS) on the implementation of the U.S. Grain Standards Act and the Agricultural Marketing Act. No meeting was held in fiscal year 1993. One full committee meeting is scheduled for fiscal year 1994.

National Advisory Committee on Meat and Poultry Inspection

The Secretary of Agriculture is required by Federal inspection laws to consult with this Committee prior to issuing product standards, labeling changes, or on matters affecting Federal and State inspection program activities. This Committee also reviews initiatives, helps develop standard descriptive terminology, and recommends when the regulatory policies need to be reexamined.

One meeting was held April 7-8, 1993, in Bethesda, Maryland. The Committee endorsed the Food Safety and Inspection Service (FSIS) Track I/Track II Strategic Plan and the Pathogen Reduction Program. Presentations were also given on food labeling, risk assessment, Hazard Analysis and Critical Control Points system development and international programs. The Committee plans to meet twice within the next fiscal year.

National Advisory Committee on Microbiological Criteria for Foods

The National Advisory Committee on Microbiological Criteria for Foods is currently co-sponsored by the Food Safety and Inspection Service, the Food and Drug Administration, National Marine Fisheries Service and the U.S. Army Surgeon General's Office. The Committee provides advice on the development of microbiological criteria by which the safety and wholesomeness of the Nation's food supply can be assessed, including criteria for microorganisms that indicate whether foods have been processed using good manufacturing practices.

During fiscal year 1993 meetings were held on February 2-5, in Orlando, Florida, April 12-13, in Cincinnati, Ohio, May 26-27, in Washington, D.C., and June 14-18 in Reston, Virginia. Three formal reports were presented to the Secretaries of Agriculture and Health and Human Services: (1) Generic HACCP for Raw Beef (2) Campylobacter jejuni/coli and (3) The Role of Regulatory Agencies and Industry in HACCP. The Committee provided its sponsors and those concerned with food safety with concrete recommendations that can be incorporated into food protection systems.

The Committee is scheduled to meet four to six times in fiscal year 1994 to complete a report on a generic Hazard Analysis Critical Control Points system for poultry, deliberate on risk assessment, review and develop consumer educational materials, and develop a new strategic plan for the next five years.

Advisory Committee on Foreign Animal and Poultry Diseases (FAPD)

This Committee advises the Secretary on the means to prevent, suppress, control, or eradicate an outbreak of foot-and-mouth disease (FMD) or other destructive foreign animal or poultry diseases should such diseases enter the United States. Committee duties involve advising and counseling on policy and regulatory action pertaining to dealing with an outbreak, changing practices in the production and marketing of animals, the importation of animals and animal products, and the handling and treatment of unusual, suspicious animal or poultry disease problems.

Eighteen members attended the Committee meeting held on June 29-July 1, 1993, in Laurel, Maryland. Topics of discussion included: Veterinary Services' organizational plans, Foreign Animal Diseases (FAD) strategic plan, the emergency plans for emergency preparedness and the international test exercise with Canada, world status of exotic animal diseases, animal research and progress in FAD research at Plum Island, FAD training and diagnostic test development, screwworm eradication in Mexico and Central America, and import/export challenges and risk assessment in international trade.

Sixteen comments or recommendations were made by the Committee. They addressed the Emergency Program Chief's position, FAD diagnostic investigations, reporting and laboratory fee schedules, quarantine requirements for exotic equine diseases, support for animal health monitoring and surveillance, the joint United States-Mexico tuberculosis committee, quarantine facilities on the west coast, fees to cover costs of Harry S. Truman Animal Import Center, USDA quarantine authority for all animal species, risk assessment and regionalization in international trade, FAD research at Plum Island,

aid other countries in an emergency, bovine spongiform encephalopathy, hog cholera, screwworm, the extra label drug bill, and avian disease infection terminology.

At least one meeting of the Committee will be held in fiscal year 1994 to receive recommendations on a number of subjects pertaining to preventing the introduction of foreign animal disease, strategies designed to contain incursions, risk assessment involving international trade, environmental issues, emergency preparedness, and animal import requirements.

General Conference Committee of the National Poultry Improvement Plan (NPIP)

The General Conference Committee represents cooperating State agencies and poultry industry members, and serves as liaison between the poultry industry and the U.S. Department of Agriculture on matters pertaining to poultry health. In fiscal year 1993, the General Conference Committee did not hold any meetings. One meeting is planned for June 27-29, 1994, in Nashville, Tennessee in conjunction with the Biennial Conference of the NPIP.

National Animal Damage Control Advisory Committee

This Committee provides advice to the Secretary on policies, program issues, and research needed to conduct the Animal Damage Control (ADC) program. Members represent a broad spectrum of agricultural, environmental and conservation groups, academia, and other interests. No meeting was held in fiscal year 1993. One full committee meeting is scheduled for fiscal year 1994 in Falls Church, Virginia.

National Organic Standards Board

The National Organic Standards Board was established to provide recommendations to the Secretary on implementing the Organic Foods Production Act of 1990, which authorizes a national organic production program establishing national standards for the production and certification of organically produced foods.
During fiscal year 1993, three meetings were held: May 15-20 in Kutztown, Pennsylvania, July 7-11 in Cottage Grove, Oregon, and September 26-29 in Fargo, Arkansas. The Board developed draft recommendations for crops covering an organic farm plan, emergency spray exemptions, residue testing, planting stock policies, split operations, small farmer exemption, and pesticide and fertilizer drift. The Board approved an organic handler plan for processors, and breeder stock and feed standards for livestock. The Board also approved the accreditation of certifiers to become national certifying agents. The Board is working on a national list of approved and prohibited materials.

INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS:

Agricultural Policy Advisory Committee for Trade

Agricultural Technical Advisory Committees for Trade (10)

These advisory committees seek information and advice from representative elements of the private sector on negotiating objectives and bargaining positions before entering into a trade agreement, on the operation of any trade agreement once entered into, and on other matters arising in connection with the administration of United States trade policy.

The committees currently in existence are an Agricultural Policy Advisory Committee for Trade (APAC), and ten Agricultural Technical Advisory Committees for Trade (ATACs) in agricultural commodities (cotton, fruits and vegetables, grain and feed, livestock and livestock products, oilseeds and oilseeds products, poultry and eggs, tobacco, dairy products, sweeteners and processed foods). The APAC provides advice regarding overall agricultural trade issues, and the ATACs provide detailed technical advice and information on their respective commodities. Each of these committees is composed of various agricultural interests such as farmers, farm and commodity organizations, processors, and traders, etc. The committees are reasonably limited in size with attention to representation from most aspects of the commodity trade and to minority and multi-sized entities.

During fiscal year 1993, some topics discussed in meetings were: 1) the North American Free Trade Agreement (NAFTA), 2) U.S.-Canadian Free Trade Agreement, 3) GATT Ministerial Meetings and the Uruguay Round of GATT negotiations as they affect U.S. agriculture, 4) Bilateral agricultural trade issues

concerning the United States and its trading partners, 5) USDA export promotion programs and the proper role of the Foreign Agricultural Service, 6) Federal legislation affecting U.S. agricultural trade and USDA programs, and 7) other items of specific interest to the individual committee members. All meetings were held in USDA facilities in Washington, D.C. The Agricultural Policy Advisory Committee met once during the fiscal year. The Agricultural Technical Advisory Committees each held the following number of meetings: Tobacco, 3; Processed Foods, 1; Fruits & Vegetables, 2; Cotton, 3; Grain and Feed, 3; Dairy, 2; Sweeteners, 2; Poultry and Eggs, 2; Livestock, 2, and Oilseeds, 2.

Pursuant to Executive Order 12838, the ten current ATAC committees will be terminated in January 1994, and five new ATAC committees will be chartered to take their place. The five new committees are: (1) Fruits, Vegetables & Processed Foods (2) Animal Products (3) Oilseeds, Grain & Feed (4) Tobacco, Cotton & Peanuts and (5) Sweeteners.

ECONOMICS:

National Agricultural Cost of Production Standards Review Board (PSRB)

This Board reviews the adequacy, accuracy, and timeliness of the cost of production methodology used by the Department in determining specific cost of production estimates, reviews the adequacy of the parity formulae, advises the Secretary on such matters dealing with the cost of production of agricultural commodities and price support operations as the Secretary may request, and makes such recommendations to the Secretary as it deems appropriate, including ways in which the cost of production methodology and parity formulae can be improved.

The Board held two meetings in fiscal year 1993, February 25-26, in San Antonio, Texas, and July 26-27, in Washington, D.C. Actions focused on Board member discussions of current USDA procedures for incorporating computing machinery costs under alternative methods, accounting for government program participation returns and costs, and valuing operator and unpaid family labor into cost production estimation. The Board reviewed the results of the 1992 hog cost production survey used to prepare USDA estimates.

Two meetings are planned for fiscal year 1994. The first meeting is planned for February 17-18, 1994. The agenda for this meeting includes review of the final report of the American Agricultural Economics Association Cost of Production Task Force. The Board will discuss the effect of implementation of environmental regulations on cost of production estimation under a system of sustainable agriculture. The Board will also evaluate USDA's procedure for reconciling net farm income with average farm operator household income. The second meeting in fiscal year 1994 will be held in July or August.

DEPARTMENTAL ADMINISTRATION:

Citizens Advisory Committee on Equal Opportunity (CACEO)

The Citizens Advisory Committee (CAC) on Equal Opportunity advises the Secretary on the effectiveness of Departmental civil rights and equal opportunity policies and practices and recommends changes that would strengthen the Department's efforts in this area. In fiscal year 1993, the Citizens Advisory Committee on Equal Opportunity did not hold any meetings.

AUTHORITY AND COMPOSITION OF USDA ADVISORY COMMITTEES

| Committee Title | USDA Agency | Descrip. of Committee Authority Statutory (S)/Discretionary (D) | Committee Membership |
|---|---|---|---|
| FOOD AND CONSUMER SERVICES: | | | |
| National Advisory Council on Maternal, Infant and Fetal Nutrition | FNS | S 42 U.S.C. 1786 | 24 |
| National Advisory Council on Commodity Distribution | FNS | S 42 U.S.C. 1786 | 14 |
| Dietary Guidelines Advisory Committee | HNIS | D Departmental Regulation 1042-94 | 9 |
| National Nutrition Monitoring Advisory Council | HNIS | S P.L. 101-445 | 9 |
| Advisory Committee on Welfare Simplification and Coordination | FNS | S 7 U.S.C. 2011 | 11 |
| SCIENCE AND EDUCATION: | | | |
| National Agricultural Research and Extension Users Advisory Board | CSRS | S 7 U.S.C. 3123 | 21 |
| National Arboretum Advisory Council | ARS | D Secretary's Memorandum 1702 | 23 |
| Human Nutrition Board of Scientific Counselors | ARS | D Secretary's Memorandum 2030 | 13 |
| Science and Education National Research Initiative Advisory Committee | CSRS | D Departmental Regulation 1043-5 | 17 |
| Advisory Council for National Genetic Resources | ARS | S 7 U.S.C. 5843 | 9 |
| Animal Health Science Research Advisory Board | CSRS | S 7 U.S.C. 3194 | 12 |
| Forestry Research Advisory Council | CSRS | S 16 U.S.C. 582a | 20 |
| Committee of Nine | CSRS | S 7 U.S.C. 361c(c)3 | 9 |
| Agricultural Biotechnology Research Advisory Committee | CSRS | D Departmental Regulation 1042-87 | 15 |
| Joint Council on Food and Agricultural Sciences | CSRS | S 7 U.S.C. 3122 | 21 |
| Agricultural Science and Technology Review Board | CSRS | S 7 U.S.C. 3123(a) | 11 |
| National Sustainable Agriculture Advisory Council | CSRS | S 7 U.S.C. 5812 | 28 |

AUTHORITY AND COMPOSITION OF USDA ADVISORY COMMITTEES

| Committee Title | USDA Agency | Descrip. of Committee Authority Statutory (S)/Discretionary (D) | Committee Membership |
|---|---|---|---|
| MARKETING AND INSPECTION SERVICES: | | | |
| Federal Grain Inspection Service Advisory Committee | FGIS | S 7 U.S.C. 87i | 15 |
| National Advisory Committee on Meat and Poultry Inspection | FSIS | S 21 U.S.C. 601 | 15 |
| National Advisory Committee on Microbiological Criteria for Foods | FSIS | D Departmental Regulation 1043-28 | 26 |
| Advisory Committee on Foreign Animal and Poultry Diseases | APHIS | D Secretary's Memorandum 1781 | 19 |
| General Conference Committee of the National Poultry Improvement Plan | APHIS | D Secretary's Memorandum 1758 | 13 |
| National Animal Damage Control Advisory Committee | APHIS | D Departmental Regulation 1043-27 | 20 |
| National Organic Standards Board | AMS | S 7 U.S.C. 6518 | 14 |
| INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS: | | | |
| Agricultural Policy Advisory Committee for Trade | FAS | D Secretary's Memorandum 1869 | 33 |
| Ag. Tech. Adv. Comm. for Trade: | | | |
| Cotton | FAS | D Secretary's Memorandum 1868 | 14 |
| Fruits and Vegetables | FAS | D Secretary's Memorandum 1868 | 12 |
| Grain and Feed | FAS | D Secretary's Memorandum 1868 | 14 |
| Livestock and Livestock Products | FAS | D Secretary's Memorandum 1868 | 10 |
| Oilseeds and Oilseed Products | FAS | D Secretary's Memorandum 1868 | 10 |
| Poultry and Eggs | FAS | D Secretary's Memorandum 1868 | 8 |
| Tobacco | FAS | D Departmental Regulation 1042-82 | 9 |
| Dairy Products | FAS | D Secretary's Memorandum 1868 | 19 |
| Sweeteners | FAS | D Secretary's Memorandum 1868 | 10 |
| Processed Foods | FAS | D Departmental Regulation 1042-68 | 12 |
| ECONOMICS: | | | |
| National Agricultural Cost of Production Standards Review Board | ERS | S 7 U.S.C. 4101 | 11 |
| DEPARTMENTAL ADMINISTRATION: | | | |
| Citizen's Advisory Committee on Equal Opportunity | DA | D Secretary's Memorandum 1960 | 20 |

## HAZARDOUS WASTE MANAGEMENT

### Purpose Statement

This program is designed to promote facility compliance under the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation Recovery Act (RCRA). These Acts require Federal agencies to meet the same standards for storage and disposition of hazardous wastes as private businesses. The funds provided for this program enable the Department to address problems posed by past uncontrolled hazardous waste disposal practices and to deal with the regulation of current hazardous substances.

A central fund has been established from which resources are allocated to USDA agencies according to priory of need. This approach permits the Department to correct compliance problems in a systematic manner.

HAZARDOUS WASTE MANAGEMENT

Available Funds and Staff-Years
1993 Actual and Estimated 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Direct Appropriation: | $16,000,000 | 1 | $15,802,000 | 3 | $26,000,000 | 3 |
| Deduct allotments to other agencies: | | | | | | |
| Commodity Credit Corp. . . . | -3,112,400 | - - | -2,963,000 | - - | -4,105,000 | - - |
| Forest Service . . . . . | -8,447,000 | - - | -7,798,000 | - - | -11,177,000 | - - |
| Agriculture Research Service . | -1,884,000 | - - | -1,233,000 | - - | -5,356,000 | - - |
| Farmers Home Administraton | -1,581,600 | - - | - - | - - | - - | - - |
| Soil Conservation Service . . | -262,000 | - - | -250,000 | - - | - - | - - |
| Farm Service Agency . . . . . | - - | - - | -1,800,000 | - - | -3,218,000 | - - |
| Animal and Plant Health Inspection Service. . . . . | - - | - - | -300,000 | - - | - - | - - |
| Office of the General Counsel | -513,000 | - - | -576,000 | - - | -945,000 | - - |
| Food Safety and Inspection Service. . . . . | -120,000 | - - | -240,000 | - - | -290,000 | - - |
| Federal Grain and Inspection Service. . . . . | - - | - - | -10,000 | - - | - - | - - |
| Program Administration . . . | -80,000 | - - | -392,000 | - - | -409,000 | - - |
| Total Allotments . . . . . | -16,000,000 | - - | -15,312,000 | - - | -25,500,000 | - - |
| Reserve for further allocation . | - - | - - | -240,000 | - - | -500,000 | - - |
| Total, HWM. . . . . | 0 | 1 | 0 | 3 | 0 | 3 |

HAZARDOUS WASTE MANAGEMENT
CLASSIFICATION BY OBJECTS
1993 and Estimated 1994 and 1995

| Personnel Compensation: a/ | | 1993 | 1994 | 1995 |
|---|---|---|---|---|
| 11 | Total personnel compensation | $2,626,000 | -- | -- |
| 12 | Personnel benefits | 573,000 | -- | -- |
| Total pers. comp. & benefits | | 3,199,000 | -- | -- |
| Other Objects: | | | | |
| 21 | Travel | 252,000 | -- | -- |
| 22 | Transportation of things | 24,000 | -- | -- |
| 23.3 | Communications, utiliities and miscellaneous charges | 27,000 | -- | -- |
| 24 | Printing and reproduction | 12,000 | -- | -- |
| 25 | Other services | 7,649,978 | 17,522,000 | 26,000,000 |
| 26 | Supplies and materials | 68,000 | -- | -- |
| 31 | Equipment | 148,000 | -- | -- |
| 32 | Lands and structures | 6,222,000 | -- | -- |
| 41 | Grants, subsidies and contributions | 73,000 | -- | -- |
| 42 | Insurance claims & indemnities | 80,000 | -- | -- |
| 43 | Interest and dividends | 2,000 | -- | -- |
| Total other objects | | 14,557,978 | 17,522,000 | 26,000,000 |
| Total direct obligations | | 17,756,978 | 17,522,000 | 26,000,000 |

a/ Staff years for oversight of Hazardous Waste Management activities are included under the Forest Service Appropriation. The Forest Service charges this central account for hours worked in support of hazardous waste management. In addition, USDA agencies charge this account for portions of salaries and benefits for staff time devoted to hazardous waste management activities.

HAZARDOUS WASTE MANAGEMENT

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Hazardous Waste Management

For necessary expenses of the Department of Agriculture, to comply with the requirement of section 107g of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. 9607g, and section 6001 of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6961, [$15,802,000] $26,000,000, to remain available until expended: Provided, that appropriations and funds available herein to the Department of Agriculture for hazardous waste management may be transferred to any agency of the Department for its use in meeting all requirements pursuant to the above Acts on Federal and non-Federal lands.

## HAZARDOUS WASTE MANAGEMENT

| | |
|---|---|
| Appropriations Act, 1994 | $15,802,000 |
| Budget Estimate, 1995 | 26,000,000 |
| Increase in Appropriation | +10,198,000 |

### SUMMARY OF INCREASS AND DECREASES
(On basis of appropriation)

| Item of Change | 1994 Estimated | Program Changes | 1995 Estimated |
|---|---|---|---|
| Hazardous Waste Management | $15,802,000 | +$10,198,000 | $26,000,000 |

### PROJECT STATEMENT
(On basis of appropriation)

| Item of Change | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Hazardous Waste Management | $14,280,124 | 1 | $15,802,000 | 3 | $10,198,000 | $26,000,000 | 3 |
| Unobligated Balance end of year | +1,719,876 | -- | -- | -- | -- | -- | -- |
| Total Available or Estimate | 16,000,000 | 1 | 15,802,000 | 3 | +10,198,000(1) | 26,000,000 | 3 |

### PROJECT STATEMENT
(On basis of available funds)

| | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Hazardous Waste Management | $16,000,000 | 1 | $15,802,000 | 3 | +$10,198,000 | $26,000,000 | 3 |
| Recovery of prior year obligation | +1,286,789 | -- | -- | -- | -- | -- | -- |
| Unobligated balance start of year | +2,190,065 | -- | +1,719,876 | -- | -1,719,876 | -- | -- |
| Unobligated balance end of year | -1,719,876 | -- | -- | -- | -- | -- | -- |
| Total available or estimate | 17,756,978 | 1 | 17,521,876 | 3 | +8,478,124 | 26,000,000 | 3 |

### EXPLANATION OF PROGRAM

This appropriation funds the Department's efforts to identify, assess, contain, and clean up hazardous waste sites in areas covered by programs of the Department or within Departmental jurisdiction. These responsibilities were imposed on all Federal agencies by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA).

Because the Department identified a number of hazardous waste sites requiring remedial action, a central fund was established in fiscal year 1988. Resources from this fund are allocated to Departmental agencies according to priority needs.

GAO Reports

A General Accounting Office (GAO) audit report, "Superfund, Backlog of Unevaluated Federal Facilities Slows Cleanup Efforts," GAO/RCED-93-119 was completed in July, 1993. The GAO has two other audits in progress. The one entitled: "Federal Facilities, Agencies Have Been Slow to Determine the Scope and Cost of Their Hazardous Waste Cleanup Problems," GAO/RCED-94-73 is in the final draft stage. The second audit entitled: "Opportunities for Environmental Auditing by Federal Agencies," Assignment Code, 160212 is in the preliminary stage.

OIG Reports

The Office of the Inspector General has two audits in progress: "Hazardous Underground Storage Tanks," Audit Number 50099-xx-At and an "Audit Survey on Abandoned Mines."

## JUSTIFICATION OF INCREASES AND DECREASES

(1) An increase of $10,198,000 to undertake hazardous waste compliance activities associated with remediation of soil and ground or surface water contamination under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and to meet underground storage tank requirements under the Resource Conservation and Recovery Act (RCRA). ($15,802,000 available in 1994).

Need for Change. The Department's hazardous waste management program is structured to assist agencies to achieve compliance with applicable environmental laws. The Superfund Amendments and Reauthorization Act established specific deadlines for completing various phases of this work. The regulations promulgated under RCRA establish specific time frames for meeting underground storage tank requirements. The Department's progress on individual projects is tracked by the general public and the Environmental Protection Agency (EPA) through the Federal Agency Hazardous Waste Compliance Docket and OMB Circular A-106.

The following table shows the resources available to or requested by USDA agencies to comply with CERCLA and RCRA requirements.

FUNDING FOR CERCLA AND RCRA PROGRAMS
(Dollars in Thousands)

| PROGRAM | FY 1993 ESTIMATE | FY 1994 CURRENT EST. | FY 1995 REQUEST | CHANGE 94/95 |
|---|---|---|---|---|
| RCRA | $3,872 | $2,370 | $5,015 | $2,645 |
| CERCLA | 12,128 | 13,432 | 20,985 | 7,553 |
| Total, All Programs | $16,000 | $15,802 | $26,000 | $10,198 |

It is essential that the program level for hazardous waste management be raised in fiscal year 1995. High priority projects from previous years have been delayed because of budget reductions. Many of these projects may reach the crisis stage if funds are not made available. This includes such projects as the Plum Island Animal Disease Center underground storage tank project, where it is anticipated that the agency must meet a compliance schedule established by the EPA and the State of New York. Compliance with underground storage tank requirements must also be undertaken at Beltsville Agricultural Research Center.

The need to meet compliance schedules and requirements becomes even more imperative with the enactment of the Federal Facilities Compliance Act. This Act establishes that Federal facilities do not have sovereign immunity from the enforcement of State environmental laws and could be obligated to pay fines and penalties assessed by States. The impact could be tremendous on both the central USDA Hazardous Waste Management budget and agency resources if deadlines cannot be met, resulting in daily fines under State enforcement actions. The Secretary has already been notified that the State of Oregon plans to initiate punitive actions against USDA if adequate funding is not provided for timely cleanup of the White King/Lucky Lass mine project. Other sites such as Plum Island, Beltsville, Blackbird Mine and the site at Bruno, Nebraska formerly used by the Commodity Credit Corporation (CCC) could pose similar problems.

RCRA PROGRAM: An increase of $2,645,000 for RCRA reflects a need for the Farmers Home Administration (FmHA), the Agricultural Research Service (ARS) and the Forest Service (FS) to comply with both Federal and State requirements for underground storage tanks. The FmHA increase is due to the need to comply with Federal and State UST requirements on properties taken into inventory through foreclosure, or other default for resale to the private sector. The FmHA currently has approximately 3,000 properties in inventory. The agency has an additional 3,500 properties which have pending foreclosure actions. The ARS increase is related to the need to comply with a broader scope of coverage and more stringent regulations established by State and local entities. This is beyond the requirements of the Federal regulations which have been established in previous years.

CERCLA PROGRAM: An increase of $7,553,000 is requested for discovery, preliminary assessments, remedial investigations, feasibility studies, and expedited removal actions and cleanup work at 119 sites throughout the country. The increases are primarily for over 40 sites for FmHA, CCC, and the FS. The increases for FmHA involve cleanup of inventory properties that have been contaminated by improper use and disposal of pesticides, herbicides, and other farm chemicals. Soil and/or ground water contamination must be cleaned up before the properties can be put back on the market. The CCC increase relates to cleanup of community water supplies in towns in Nebraska and Kansas which have been contaminated with carbon tetrachloride and chloroform from fumigation efforts during the grain storage program that was discontinued in the 1970's. These formerly used sites must be cleaned up to provide safe drinking water for these rural communities. In some instances, interim measures such as providing bottled water for drinking may be necessary until a permanent solution can be developed and completed. The FS increase relates to cleanup of abandoned mines and closed sanitary landfills. Some of this increase also relates to natural resource damage assessment funding which is necessary to assess injuries to natural resources caused by third parties and which will result in settlements or litigation to recover damages to restore the environment.

Nature of Change. The fiscal year 1995 request provides USDA agencies with the resources needed to respond to crucial projects and to carry out an effective hazardous waste management program. The work under CERCLA will involve removal and remedial activities that include preliminary assessments, site investigations, analyses to identify potential site assessments, analyses to identify potential problems, cleanup strategies, and actual cleanup of sites. The discovery phase of identifying potential problems is virtually complete, with two notable exceptions. The Forest Service has not determined the magnitude of the problems associated with abandoned mines and closed sanitary landfills. The FmHA has not determined the number of contaminated properties they have in inventory or potentially through additional acquisitions. Much of the preliminary work has been completed in the other agencies so that cleanup will be underway on numerous projects. Because of the special training and expertise needed to conduct these activities, most of the work will be contracted out to qualified firms.

For RCRA facilities, the work will involve meeting underground storage tank requirements, including cleanup of contamination from tanks that have been leaking. It will also provide for cleanup of contamination at landfills or other unauthorized or unregulated land disposal sites. The work will also provide for UST removals to help achieve the objective of eliminating government-owned fuel facilities.

Allotments to USDA agencies are shown below. The allotments for fiscal year 1994 and 1995 are tentative, based on current program status.

Current and Proposed Allotment of Funds
for Hazardous Waste Management
(Dollars in Thousands)

| Budget Activity | FY 1993 Estimate | FY 1994 Estimate | FY 1995 Estimate | Change 1994/1995 |
|---|---|---|---|---|
| | Funds | Funds | Funds | Funds |
| Commodity Credit Corporation | $3,112 | $2,963 | $4,105 | +$1,142 |
| Forest Service | 8,447 | 7,798 | 11,177 | + 3,379 |
| Agricultural Research Service | 1,884 | 1,233 | 5,356 | +4,123 |
| Farmers Home Administration | 1,582 | --- | --- | --- |
| Soil Conservation Service | 262 | 250 | --- | -250 |
| Farm Service Agency | --- | 1,800 | 3,218 | +1,418 |
| Animal & Plant Health Inspection Service | --- | 300 | --- | -50 |
| Office of the General Counsel | 513 | 576 | 945 | +369 |
| Food Safety and Inspection Service | 120 | 240 | 290 | +50 |
| Federal Grain Inspection Service | --- | 10 | --- | -10 |
| Contingencies | --- | 240 | 500 | +10 |
| Program Administration | 80 | 392 | 409 | +17 |
| TOTAL | $16,000 | $15,802 | $26,000 | +10,198 |

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Washington, D.C. . . . . | $14,280,124 | 1 | $17,522,000 | 3 | $26,000,000 | 3 |
| Unobligated balance . . | 1,719,876 | -- | -- | -- | -- | -- |
| Total Available or Estimate . . . . . | 16,000,000 | 1 | 17,522,000 | 3 | 26,000,000 | 3 |

## HAZARDOUS WASTE MANAGEMENT

### STATUS OF PROGRAM

This program provides for facility compliance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation Recovery Act (RCRA).

In August 1985, USDA initiated a Nation-wide survey to determine the overall scope of the problems associated with the past unregulated hazardous waste disposal practices and the current regulation of hazardous waste substances. USDA agencies identified and reported on facilities or sites in violation of applicable standards resulting in contamination of ground or surface water, as well as the release of hazardous substances. The initial survey identified a number of hazardous waste problems, which included improper handling of toxic chemicals at research facilities, inadequate storage of pesticides and other hazardous substances, and leaking underground storage tanks. Based on the potential magnitude of the costs of compliance, a central fund was created in fiscal year 1988 from which resources are reallocated to USDA agencies according to established need.

Current Activities:

CERCLA Program

Much of the activity under this program has been directed toward site discovery, preliminary assessments, and site investigations aimed at verifying and quantifying individual project and overall program requirements. This step in the CERCLA process is important because it establishes the basis for further actions, as the data gathered is used to determine the next phases that may be necessary. For example, the Forest Service has identified a number of serious problems associated with past mining activities and abandoned mining wastes and with permitted municipal landfills located on National Forest lands. The Farmers Home Administration also has identified the need to cleanup hazardous wastes on properties obtained through foreclosure. All of these problems are expected to continue in the near future. Efforts are underway to attempt to recover costs for some of this work from potential responsible parties (PRP's).

In fiscal year 1993, USDA agencies initiated investigations at over 178 CERCLA sites. This work included preliminary assessments (PA's), site investigations (SI's), and two remedial investigation/feasibility studies (RI/FS's). All of the documents associated with these assessments, investigations, and studies have been submitted to the Environmental Protection Agency (EPA) and the appropriate State agencies for their review and approval.

Cleanup activities were completed at 139 sites. Many cleanups involved emergency removal actions associated with illegal dumps and hazardous material spills. However, many other cleanups involved removal or remedial actions which have resulted in permanent cleanup of the sites. For example, the Farmers Home Administration completed cleanup at over 40 sites which involved removal of containerized waste and proper disposal of contaminated material. The Agricultural Research Service and the Forest Service initiated major cleanup contracts in Maryland and Arizona, respectively, with work to be completed next fiscal year.

RCRA Program

The activity under this program has been directed toward compliance with underground storage tank (UST) requirements. This includes leak testing, monitoring tank removal, repair or replacement, and cleanup activities. USDA agencies made significant progress in this program this year by completing the following:

- **Forest Service** completed removal and cleanup of a total of 129 UST's;
- **Farmers Home Administration** removed 128 tanks; and
- **Soil Conservation Service (SCS)** removed UST's at 3 different locations throughout the country. Cleanup of contaminated soil was initiated at 3 sites where tanks leaked.

In addition to UST compliance, RCRA activities included the treatment and disposal of hazardous wastes. In fiscal year 1993, the Forest Service conducted site investigations and testing at ten sites and began corrective actions at 25 other sites. Much of this effort involved old sanitary landfills or dumps that have been closed for several years and now pose a threat for the release of hazardous substances. In some

cases, site testing has proven negative; therefore, no further work will be needed. However, additional testing and/or corrective actions will be necessary at many sites. The Forest Service also faces another potentially serious problem related to small, local municipal landfills that have been permitted on National Forest lands. Leachate from these facilities is causing both soil and ground water contamination. In many cases where local communities do not have the resources to take necessary corrective action, the Forest Service will be held liable as manager of the lands.

Other agencies also were involved in RCRA cleanup activities during fiscal year 1993. For example, the SCS installed equipment to reduce or eliminate waste pesticides and rinse waters at locations in Georgia and Oregon. The SCS also completed improvements for handling waste pesticides at facilities in Missouri, Oregon and California.

## OFFICE OF COMMUNICATIONS

### Purpose Statement

The Office of Communications (formerly the Office of Public Affairs) was established by the Secretary of Agriculture on October 1, 1989, under authority contained in the Reorganization Plan No. 2 of 1953 (7 U.S.C. 2201). Secretary Espy established the Office of Communications (OC), and ordered that the Office of Public Affairs be abolished effective September 5, 1993. All of the authorities, responsibilities, and functions assigned to the Office of Public Affairs were transferred to the Office of Communications (except for Intergovernmental Affairs responsibilities). OC undertakes its public information activities under delegations of authority from the Secretary of Agriculture; and through OC's public information activities, people outside USDA learn about the policies, goals, programs, and executive management of the Department.

OC provides leadership, expertise, counsel, and coordination for the development of communication strategies which are vital to the overall formulation, awareness, and acceptance of U. S. Department of Agriculture programs and policies. OC serves as the principal USDA contact point for dissemination of consistent, timely information. OC has reduced separate units, and created an interactive team approach to communications management as a result of its internal reorganization. As of September 30, 1993, there were 125 full-time permanent employees and 17 other than full-time permanent employees

The primary program of the Office of Communications is:

Communications and Public Affairs. Providing communications and public affairs direction in the development and delivery of useful information through all media to the public on USDA's involvement in all areas of agriculture including: farm and international trade services; rural economic and community development; food, nutrition and consumer services; natural resources and environment; marketing and inspection services; and research, education and economic activities. OC also serves as liaison between the Department and the many associations and organizations representing America's food, fiber, and environmental communication, with emphasis on policy education.

Service is provided through (5) five areas: Administration; Public Liaison; News, Information Planning, and Placement Team; Creative Services Center; and Coordination and Oversight Team. OC also provides centralized services financed through the Working Capital Fund (WCF) in the areas of video production and teleconferencing, design and exhibits production.

OFFICE OF COMMUNICATIONS

Available Funds and Staff-Years

1993 Actual and Estimated 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Direct Appropriations: | $8,925,000 | 105 | $8,570,000 | 117 | $8,360,000 | 111 |
| Obligations Under Other USDA Appropriations: | | | | | | |
| Agency Photo Service . . . . . | 468,504 | -- | 680,000 | -- | 685,000 | -- |
| Agriculture Research Service . . | -- | -- | 54,000 | 1 | 84,000 | 1 |
| Administrative Support to Working Capital Fund . . . . | 74,465 | 2 | -- | -- | -- | -- |
| Total, Reimbursements. . . . . | 542,969 | 2 | 734,000 | 1 | 769,000 | 1 |
| Working Capital Fund: | | | | | | |
| Video & Teleconference and Visual Design Services . . . . | 4,650,000 | 25 | 4,452,000 | 29 | 4,516,000 | 29 |
| Total, Working Capital Fund . . | 4,650,000 | 25 | 4,452,000 | 29 | 4,516,000 | 29 |
| Total, Other USDA Appropriations | 5,192,969 | 27 | 5,186,000 | 30 | 5,285,000 | 30 |
| Total, Agriculture Appropriations | 14,117,969 | 132 | 13,756,000 | 147 | 13,645,000 | 141 |
| Non-Federal Funds: | | | | | | |
| Sale of Photos & Slides . . . . . | 8,031 | -- | 10,000 | -- | 10,000 | -- |
| Total, Office of Communications | 14,126,000 | 132 | 13,766,000 | 147 | 13,655,000 | 141 |

OFFICE OF COMMUNICATIONS

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | | 1993 | 1994 | 1995 |
|---|---|---|---|---|
| Personal Compensation: | | | | |
| Headquarters | | $5,375,201 | $6,357,000 | $6,056,000 |
| 11 | Total personnel compensation | 5,375,201 | 6,357,000 | 6,056,000 |
| 12 | Personnel Benefits | 840,578 | 1,137,000 | 1,044,000 |
| 13 | Benefits for former personnel | 1,349 | 13,000 | 13,000 |
| Total pers. comp. & benefits | | 6,217,128 | 7,507,000 | 7,113,000 |
| Other Objects: | | | | |
| 21 | Travel | 81,283 | 68,000 | 68,000 |
| 22 | Transportation of things | 5,599 | 11,000 | 11,000 |
| 23.3 | Communications, utilities, and miscellaneous charges | 459,288 | 342,000 | 340,000 |
| 24 | Printing | 620,096 | 243,000 | 237,000 |
| 25 | Other services | 940,326 | 291,000 | 287,000 |
| 26 | Supplies and materials | 153,673 | 95,000 | 95,000 |
| 31 | Equipment | 204,591 | 13,000 | 209,000 |
| Total other objects | | 2,464,856 | 1,063,000 | 1,247,000 |
| Total direct obligations | | 8,681,984 | 8,570,000 | 8,360,000 |
| Position Data: | | | | |
| Average Salary, ES positions | | $97,863 | $101,790 | $104,376 |
| Average Salary, GM/GS positions | | $49,344 | $52,215 | $52,223 |
| Average Grade, GM/GS positions | | 11.24 | 10.96 | 10.98 |

OFFICE OF COMMUNICATIONS

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Office of Communications

[Public Affairs]

For necessary expenses to carry on services relating to the coordination of programs involving public affairs, and for the dissemination of agricultural information and the coordination of information, work and programs authorized by Congress in the Department, [$8,570,000] $8,360,000 including employment pursuant to the second sentence of Section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), of which not to exceed $10,000 shall be available for employment under 5 U.S.C. 3109, and not to exceed $2,000,000 may be used for farmers' bulletins: Provided, That hereafter, none of the funds available to the Department of Agriculture may be used to produce part 2 of the annual report of the Secretary (known as the Yearbook of Agriculture).

[Intergovernmental Affairs]

[For necessary expenses for programs involving intergovernmental affairs and liaison within the executive branch, $475,000.]

This change reflects the move of the Intergovernmental Affairs function from the Office of Communications to the Office of the Assistant Secretary for Congressional Relations.

OFFICE OF COMMUNICATIONS

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | 1993 Headquarters | 1994 Headquarters | 1995 Headquarters |
|---|---|---|---|
| ES-4 | 2 | 2 | 2 |
| ES-1 | 2 | 3 | 3 |
| GS/GM-15 | 10 | 8 | 8 |
| GS/GM-14 | 29 | 30 | 25 |
| GS/GM-13 | 20 | 16 | 21 |
| GS-12 | 14 | 20 | 18 |
| GS-11 | 10 | 13 | 11 |
| GS-9 | 13 | 17 | 15 |
| GS-8 | 3 | 3 | 3 |
| GS-7 | 16 | 20 | 20 |
| GS-6 | 3 | 5 | 5 |
| GS-5 | 5 | 4 | 4 |
| GS-4 | 1 | 1 | 1 |
| Upgraded Positions | 5 | 5 | 5 |
| Total Permanent Positions | 133 | 147 | 141 |
| Unfilled Positions end-of-year | -2 | -- | -- |
| Total, Permanent Employment, end-of-year | 131 | 147 | 141 |
| Staff-Years: Ceiling | 132 | 147 | 141 |

## OFFICE OF COMMUNICATIONS

| | |
|---|---|
| Appropriations Act, 1994 | $9,045,000 |
| Budget Estimate, 1995 | 8,360,000 |
| Decrease in Appropriation | -685,000 |

| | | |
|---|---|---|
| Adjustments in 1994: | | |
| Appropriations Act, 1994 | $9,045,000 | |
| Function transferred to the Assistant Secretary for Congressional Relations a/ | -475,000 | |
| Adjusted base for 1995 | | $8,570,000 |
| Budget Estimate,1995 | | 8,360,000 |
| Decrease from adjusted 1994 | | -210,000 |

a/ Pursuant to the authority given to the Secretary in Reorganization Plan No. 2 of 1953, function of the Office of Intergovernmental Affairs was transferred to the Assistant Secretary for Congressional Relations.

SUMMARY OF INCREASES AND DECREASES
(On basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Communications | $8,570,000 | +$76,000 | -$286,000 | $8,360,000 |

Project Statement
(On basis of adjusted appropriation)

| Item of Change | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Communications | $8,681,984 | 105 | $8,570,000 | 117 | -$210,000 | $8,360,000 | 111 |
| Unobligated balance | 243,016 | -- | -- | -- | -- | -- | -- |
| Total available or estimate | 8,925,000 | 105 | 8,570,000 | 117 | -$210,000(1) | $8,360,000 | 111 |
| Transferred to the Asst. Secy for Cong. Rel. | +468,000 | +5 | +475,000 | +6 | | | |
| Total Appropriations | 9,393,000 | 110 | 9,045,000 | 123 | | | |

## EXPLANATION OF PROGRAM

The appropriation for the Office of Communications funds the activity established pursuant to the relevant sections of Secretary's Memorandum No. 1927, dated October 5, 1977, and the authority contained in 5 U.S.C 301 and Reorganization Plan No. 2 of 1953 (7 U.S.C. 2201). The activity carried out is as follows:

The Office of Communications provides leadership, expertise, and counsel for the development of public affairs strategies which are vital to the overall formulation, awareness, and acceptance of U.S. Department of Agriculture programs and policies. Office of Communications serves as the principal USDA contact point for dissemination of consistent, timely information.

Explanation of Proposed Reorganization: Under the Secretary's proposed reorganization plan, 5 staff years and related funding will be reassigned from the Office of Communications to the Office of the Secretary to establish an Office of the Assistant Secretary for Communications.

JUSTIFICATION OF INCREASES AND DECREASES

(1) A net decrease of $210,000 for Communications:

(a) A decrease of $580,000 for a reduction in Federal employment costs.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, OC is reducing employment from the FY 1993 base by 6 percent.

Nature of Change. To achieve the reduction, OC will streamline its operations. The total reduction in personnel costs amounts to $580,000. OC's streamlining includes: (1) restructuring their organization from nine major staff units to three new major units, which will require fewer unit managers; (2) reducing the Department's annual printing cost by requiring more stringent justifications for publication, design, and printing needs; and (3) conducting reviews on consolidating specialized communications services (such as photographers, video graphers, and graphics designers) from the agencies with the Office of Communications which will improve the services and reduce the cost.

(b) A decrease of $58,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $58,000.

Nature of Change. In order to achieve these savings, OC will reduce discretionary expenses by $58,000 in FY 1995. This will be accomplished through monitoring the level of information support products in areas such as printing and visual services, and through conducting a review of administrative support service charges.

(c) An increase of $76,000 for pay increases.

(d) An increase of $44,000 which reflects a 2.6 percent increase in non-salary costs.

(e) An increase of $110,000 for personnel compensation.

Need for Change. This increase is needed to cover the anticipated costs of a lump sum payment for a retiring SES employee.

Nature of Change. The lump sum payment will provide $110,000 for one SES retiree.

(f) An increase of $198,000 for upgrading of communications equipment.

Need for Change. OC's mission is to communicate departmental information and actions about USDA's programs to many audiences. The information communicated must be current, accurate, and easily accessible. In order to achieve this, OC needs to improve and expand its communication services.

Nature of Change. Funds will be used to expand the use of modern on-line computer communications systems such as computer bulletin boards, fax-on-demand technology and a tape distribution system.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Washington, D.C. | $8,681,984 | 105 | $8,570,000 | 117 | $8,360,000 | 111 |
| Unobligated balance | 243,016 | -- | -- | -- | -- | -- |
| Total Available or Estimate | 8,925,000 | 105 | 8,570,000 | 117 | 8,360,000 | 111 |

# OFFICE OF COMMUNICATIONS

## STATUS OF PROGRAMS

The Office of Communications (OC) directs information about USDA programs to the people of the United States. To achieve that objective, OC reports through the various media and sometimes directly to farmers, consumers, environmentalists, business interests, special groups, and the general public regarding the Department's programs, policies, and activities. The success of the Department's initiatives often depends on the effectiveness of public affairs programs in creating awareness.

Activities under this appropriation are carried out through the following major program areas:

### NEWS, INFORMATION PLANNING, AND PLACEMENT

The News, Information Planning, and Placement Center team works on special projects (e.g., Annual Report, Factbook on Agriculture, etc.), as well as planning and placement of daily stories to targeted media markets. This team brings all production media into the news and information discussion while designing the best news and information product.

OC serves as the Department-level clearinghouse for providing the media with current information about USDA's programs and policies in the form of news releases, news and photo features, background statements, speeches, report summaries, and similar materials. OC maintains continuous communication with reporters, writers, editors, radio/TV broadcasters, producers and specialized journalists. OC monitors the activities of associations and organizations to assure appropriate information is available to USDA officials and assists in the preparation of briefing information for the White House and the Secretary of Agriculture.

In fiscal year 1993, OC delivered 1,036 news releases and related items for national distribution, with most of those materials available both on paper and through electronic dissemination and by facsimile to reach a broader section of the public with greater speed and accuracy.

OC also works closely with the Department's agencies in providing feedback to top level officials on what the popular and trade press are saying about USDA programs, policies, and actions, including preparing a daily book of news clippings and wire stories. OC staff prepares "Ag a.m.," a daily morning news digest, and news digests that summarize articles and editorials from news wires, national newspapers, news magazines and other key periodicals dealing with agricultural issues. The news digests are electronically prepared and made available electronically on the USDA LAN system, by facsimile, and in hard copy for nationwide early morning distribution to Department officials.

### CREATIVE SERVICES

The Production and Creative Service Center includes OC's Department-level design, photography, video & radio, teleconferencing, and printing functions. This includes producing exhibits, publications, and video projects from conception through to completion (e.g., planning, scheduling, construction, design, layout, editing, etc.). OC's production and creative areas assists the agencies in fulfilling their mission to provide information to the public on their programs.

Electronic Media -- OC's Video and Teleconferencing Division, a Working Capital Fund (WCF) unit has been the leader for several years for the Department, as well as other Federal agencies in evaluating and testing of teleconferencing technology and methods. OC has a wide spectrum of teleconferencing tools from audio, to compressed video through telephone lines, to interactive teleconferencing with the use of satellite technology.

The Video and Teleconference Division received 530 orders for video productions and related services in fiscal year 1993. Major video productions included such topics as the advantages of purchasing crop insurance, helping co-op members select well qualified directors, training help for the boll weevil eradication program in the south, educating travelers to foreign countries about leaving behind any products which might contain pests, offering marketing services in USDA agencies such as AMS and FGIS, recruiting for OIG auditors and investigators, educating the public about the history of America's forests, delivering summer feeding programs for the needy, informing audiences through several "how to" stream and soil reclamation and conservation videos, training through mediation for FmHA employees, training through use of grain inspection standards, and educating the public through live outreach forums including farm income, nutrition, and rural development. This unit handled 2,515 audioconferences last year, which is an increase of 477 conferences over the past year's total.

Radio -- USDA's Radio Newsline provides 24-hour availability of five to ten news items, many with voice actualities, each no longer than 60 seconds. These are recorded and made available at 5 p.m. EST each weekday except holidays. Stations access the playback machines via telephone, recording the material for future use in their broadcast. Over 1,000 stories were produced by staff during fiscal year 1993. A number of agricultural networks with up to 150 affiliated stations each are regular users of this service. In addition, four weekly series are offered on audio cassette with accompanying cue sheets. These are distributed to approximately 900 radio stations and networks. Over 16,000 calls were received by the Radio Newsline in 1993.

The radio and TV staff received international recognition during fiscal year 1993 for the quality of their programming. Radio staff received a medal in the educational category at the New York Festivals International Radio Competition for a program produced and distributed in USDA's weekly cassette service. TV staff received an award at the Ecofilm Festival in the Czech Republic for the program "Managing Our National Forests". The program was distributed overseas by the United States Information Agency.

Hispanic Information Service is a weekly tape service mailed to radio stations. The service offers both audio cassette and reel-to-reel tape.

Television -- USDA television news service provides news actualities regarding Department policy and features. These are distributed by satellite (Galaxy 6) on Thursday evening and Saturday morning and repeated on Monday morning. Feature subjects cover a wide range of topics. Over 100 features and more than 450 actualities were produced by staff for this service.

"Agriculture Update," a 5-minute news format program, is produced every other week and provides information about agricultural production programs.

"Research News Features" are 2 to 3 minute programs produced on location and cover developments in such topics as agricultural research.

Photography -- OC maintains an extensive centralized USDA Photo Library of captioned black/white prints and color slides. These images are the photo history of USDA's programs and activities. They cover subjects relating to food production, distribution, nutrition, marketing, food safety and inspection, conservation, and research. OC provides photographic research services and distributes photographs to the news media and to the public.

"Photojournalism" -- OC works with USDA agencies to develop and distribute to national, regional and local media, picture stories and photographic press releases to inform the public of USDA programs, activities, and services available.

"Audio Visual Presentations" -- OC works with USDA agencies to produce and distribute narrated slide presentations on various agricultural topics and programs. These are available as slide sets or video cassettes to educational organizations, industry, and the public.

In fiscal year 1992, Photography Division completed acquisition of basic digital electronic equipment to supplement existing analog imaging equipment. In fiscal year 1993, OC implemented the digital operation system allowing satellite linkup to send images around the world in minutes. The new technology is more efficient for photographic research and offers easier access to images available in the Photographic Library.

Design -- Design, a Working Capital Fund (WCF) unit, is a centralized design and exhibit service for the Department. Its responsibility is to give design leadership to USDA's information programs through print, exhibits, and other media. The guiding principle of this WCF operation is to provide appropriate visual communication materials for specifically targeted audiences, clear message-related images at reasonable costs. The Center has a full complement of state-of-the-art electronic work stations, applications, sign-maker, scanners, and printers.

The graphic design staff handles over 3,500 visual requests a year including: brochures, manuals, publications, books, periodicals, presentation materials, posters, symbols and specialty items.

The exhibit area includes planning, interpretation, design, fabrication, shipping, installation, and warehousing. We provide contracting advice, written specifications, model building, budgeting, audience analysis, site surveys, and blueprints and offer a wide range of expertise. Projects include table top displays, trade shows, traveling exhibits, large scale permanent displays in visitor centers, outdoor interpretive signage, special events, and interiors of buildings.

A number of permanent major visitor centers for FS, FCIC Crop Insurance Marketing directives, reaction for the flood disaster, nutrition material, food stamps and numerous agency programs. We produced visual materials for national, international, regional and local USDA offices.

Printing -- During the summer of fiscal year 1993, OC encouraged USDA agencies to use creativity in providing information to customers while reducing printing cost (e.g., electronic formats, cost sharing with other agencies, less expensive printing materials, production of fewer, but targeted publications, etc.).

The following is a list of the publications and the number printed in OC during Fiscal Year 1992 and 1993:

| | FY 1992 | FY 1993 |
|---|---|---|
| Printing through main GPO or on contract | 7,380 | 6,387 |
| Miscellaneous orders through GPO's Rapid Response Center (RRC), GPO's Regional Printing Procurement Offices (RPO), Federal Prison Industries (UNICOR), and Commerce | 1,699 | 1,193 |
| Composition (In-House USDA) | 996 | 1,000 |
| Printing through USDA Duplicating Facility (OO): | | |
| Miscellaneous orders placed through USDA Facility | 143 | 75 |
| Miscellaneous orders reviewed and cleared for printing in USDA Facility | 1,059 | 598 |
| Waivers for jobs not presented to OPA for clearance | 4,295 | 4,512 |
| Total Printing Orders | 15,572 | 13,765 |

## COORDINATION AND OVERSIGHT

The Coordination and Oversight Center includes the communication coordinators team and the review team functions. OC's review team separates the creative work of OC from the oversight work, while reviewing, and overseeing the news and information products of the agencies for editorial content, design, and video production.

During fiscal year 1993, OC established at the Under/Assistant Secretary levels seven (7) Communication Coordinator positions. These individuals provided information support and coordination functions, vertically and horizontally with all other USDA information support levels. Communication Coordinator positions were advertised Department-wide and filled by career employees on a competitive basis.

The review staff is working with the American Association for the Advancement of Science and the National Agricultural Library to publish a book in English entitled "Five Continents" by the late Dr. Nikolay Vavilov, one of the world's leading botanists and a friend of the former Secretary of Agriculture, Henry A. Wallace. Vavilov worked closely with USDA plant geneticists and breeders in the 1920's and 30's and identified eight specific areas around the world where he believed farmers first domesticated plants.

The review team is working with the Soil Conservation Service and the Russian Academy of Agricultural Sciences, to publish a joint United States/Russian publication on soil and water conservation. The final product will be a four-color, high-quality, bilingual publication of use to both nations. There will be 10 articles from each side, with multiple authors. The working title of the book will be "Protection of Soil and Water Resources".

## ADMINISTRATION

OC serves as USDA's central coordinating unit for the Freedom of Information Act (FOIA) and its amendments (Privacy Act and Commuter Matching and Privacy Protection Act). Department regulations and guidelines are updated to conform with amendments to the law or new directives from the Department of Justice and

Office of Management and Budget. A Data Integrity Board, required by the Computer Matching Act of 1988 was established and is presently chaired by the Director of OC.

Information Dissemination and Distribution -- OC was the first Federal agency to use a fax-on-demand system to allow reporters, using voice prompts on a telephone, to request and receive on their fax machine news releases, features, and backgrounders on specific subjects. Our AgNewsFax system allows a user to call 24-hours a day, 7 days a week to receive faxed releases. These releases are listed by number, subject or date, and some are in Spanish. Presently, the fax-on-demand system is being updated to use state-of-art technology in dissemination of information. Electronic dissemination is currently limited to the use of the AgNewsFax system and two electronic mail systems (i.e., WordPerfect Office and FTS2000). OC is in the process of upgrading the AgNewsFax system to expand the volume of information disseminated, thereby improving service to its customer base users. However, improving service to existing customers goes beyond simply making information available. Different USDA customers have different needs and making the system responsive to those different needs is a means of improving service. OC will be using the system's capability of broadcasting information selectively to targeted regions and media.

Computerized Information Delivery Service -- During fiscal year 1993, OC continued to offer its computerized information delivery service (CIDS) as an alternate means of accessing USDA information. This information includes national and regional press releases, economic and statistical reports, market reports, export trade leads, agricultural research briefs, and other information released by USDA.

Farmer Information Survey -- OC commissioned from the National Agricultural Statistics Service (NASS) a survey of American farmers to determine where they get their information about USDA programs and other kinds of information important to their work. Respondents were asked to identify their sources of farm information, USDA programs, computer usage, use of a toll free number to obtain information, and to indicate if they received USDA publications, etc. This survey determined that: "Across the U.S., about one-fourth of the farm operators reported owning a computer" and "32 percent of the respondents indicated they would use a USDA computer bulletin board." "This is higher than the percent of farm operators who own a computer because an operator could use a computer at a County Extension office or another location (i.e., public library) to access the bulletin board."

USDA Bulletin Board System (USDA/BBS) -- Fiscal year 93 was also spent in determining that a significant opportunity for enhancing information dissemination and broadening our customers access to information could be enhanced through the use of a USDA Bulletin Board System (BBS). We are in the process of preparing both the functional and technical design of this system. A bulletin board system will allow the public to access information as well as download files to their local computers.

Distribution -- Publishing Distribution handled 9,037 telephone calls for information/publications from members of the Congress for fiscal year 1993.

Regulation Review -- OC has been in the process of reviewing and updating appropriate sections of Departmental regulations to reflect the new OC, incorporating a "customer service orientation," and to reduce regulations to the minimum required.

Publications Audit -- OC conducted a comprehensive communications audit of (external) publications as a baseline for reviewing unproductive communication expenditures, and improving the effectiveness of communication products planned for the future.

Annual Report and the 1993 Yearbook of Agriculture -- The 1993 Secretary's Annual Report Part 1, issued late in the calendar year, summarized the Department's activities for the past year. The decision was made not to publish Part 2, the 1993 Yearbook of Agriculture, entitled "Nutrition: Eating for Good Health."

## PUBLIC LIAISON (PL)

Public Liaison (PL) develops and maintains liaison with farm, trade, consumer associations, national resource and environmental groups and with organizations representing women, minorities, and educational groups. PL also plans and coordinates policy and educational briefings in Washington, D.C. and across the country. PL participates in national meetings, conferences, and programs to provide and disseminate information about USDA and its programs. In working with a diverse range of constituents, agriculture and interest groups, PL acts as a clearinghouse to keep USDA agencies apprised of issues and concerns voiced by outside groups, many of whom have never before participated in USDA programs.

World Food Day -- PL facilitated a diverse range of World Food Day activities by serving as lead coordinator for Federal Agencies. USDA developed and distributed 2,000 calendar brochures promoting World Food Day events sponsored by the U.S. Departments of Education and Housing and Urban Development, the U.S. National Committee for World Food Day, the United Nations' Food and Agriculture Organization, the World Food Prize, and the U.S. Information Agency. The brochure also promoted "The President's Report to the U.S. Congress on World Food Day," prepared by USDA in collaboration with the Agency for International Development.

PL also sponsored a "Biodiversity Teleconference" as part of a satellite conference broadcast to colleges and other sites throughout the Western Hemisphere and provided a package of radio and television programming via satellite and tape to stations across the country.

Visitors Center -- The Center handled 55,356 telephone calls for information and assisted 4,341 visitors. Because of the Visitors Center's frequent interaction with the public, they also act as a clearinghouse for the most commonly requested USDA publications available.

National Service -- PL coordinates and leads USDA's efforts in National Service initiatives. PL has formed a task force of USDA working groups to study and orchestrate the agency's participation in specific National Service programs focusing on rural development, anti-hunger, empowerment and environmental efforts.

Van Ness Tutoring Program -- Van Ness Elementary School in Southeast Washington is USDA's Partnership School. The core of PL's assistance to the Partnership School participation involves recruiting and coordinating USDA employees who work two (2) hours a week with students at Van Ness. Last year, 60 USDA employees provided tutoring assistance. PL also coordinates a number of other volunteer activities to benefit Van Ness students, including mentoring, obtaining software and computers for school use, and sponsoring clothing and toy collection drives for students.

Midwest Flood Support -- PL coordinated a variety of information in response to the needs of rural Midwest flood victims. A packet detailing specific assistance available from USDA programs was distributed to the nine flood-affected states via volunteer organizations, state and local offices, state departments of agriculture and governor's offices. Fact sheets were also made available through fax-on-demand.

Public Liaison staff also worked with the Federal Emergency Management Agency (FEMA) to publish five issues of a joint USDA-FEMA newsletter which detailed interagency governmental and volunteer assistance available for flood victims.

Seven hundred thousand copies of the RECOVERY TIMES were distributed to flood victims in the nine states of Iowa, Illinois, Missouri, Nebraska, Kansas, South Dakota, North Dakota, Wisconsin and Minnesota through the Agricultural Stabilization and Conservation Service, Farmers Home Administration, Soil Conservation Service, and the Extension Service.

Public Liaison Council -- PL has formed a Public Liaison Council to share information on outreach, and requests for briefings and suggested speaking engagements in Washington and throughout the country for Assistant and Under Secretaries. The Council meets periodically to discuss ways to improve and coordinate outreach to constituent groups.

## OFFICE OF BUDGET AND PROGRAM ANALYSIS

### Purpose Statement

The Office of Budget and Program Analysis coordinates the preparation of departmental budget estimates and legislative reports; administers systems for the allotment and apportionment of funds; provides policy, program and budgetary analysis of USDA programs and proposals; and provides staff assistance to USDA agencies in meeting their responsibilities for the development and review of regulations.

The Office of Budget and Program Analysis is located in Washington, D. C. As of September 30, 1993, there were 71 full-time permanent employees and one other than full-time permanent employee.

OFFICE OF BUDGET AND PROGRAM ANALYSIS

Available Funds and Staff-Years

1993 Actual and Estimated 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Direct Appropriations . . . . | $5,756,000 | 71 | $5,881,000 | 74 | $5,899,000 | 74 |

OFFICE OF BUDGET AND PROGRAM ANALYSIS

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | 1993 Headquarters | 1994 Headquarters | 1995 Headquarters |
|---|---|---|---|
| ES-6 | 4 | 2 | 2 |
| ES-5 | 1 | 2 | 2 |
| GS/GM-15 | 9 | 8 | 8 |
| GS/GM-14 | 16 | 16 | 16 |
| GS/GM-13 | 17 | 17 | 16 |
| GS-12 | 5 | 5 | 5 |
| GS-11 | 4 | 5 | 5 |
| GS-10 | 1 | 1 | 1 |
| GS-9 | 3 | 3 | 4 |
| GS-8 | 5 | 5 | 5 |
| GS-7 | 8 | 8 | 8 |
| GS-5 | 3 | 2 | 2 |
| Total Permanent Positions | 76 | 74 | 74 |
| Unfilled Positions end-of-year | -5 | -- | -- |
| Total, Permanent Employment, end-of-year | 71 | 74 | 74 |
| Staff-Years: Ceiling | 71 | 74 | 74 |

## OFFICE OF BUDGET AND PROGRAM ANAYSIS

### CLASSIFICATION BY OBJECTS

### 1993 and Estimated 1994 and 1995

| Personal Compensation: | | 1993 | 1994 | 1995 |
|---|---|---|---|---|
| Headquarters | | $4,119,085 | $4,640,000 | $4,672,000 |
| 11 | Total personnel compensation | 4,119,085 | 4,640,000 | 4,672,000 |
| 12 | Personnel Benefits | 596,932 | 681,000 | 672,000 |
| 13 | Benefits for former personnel. | 3,446 | -- | -- |
| Total pers. comp. & benefits | | 4,719,463 | 5,321,000 | 5,344,000 |
| Other Objects: | | | | |
| 21 | Travel | 10,037 | 12,000 | 12,000 |
| 22 | Transportation of things | 235 | -- | -- |
| 23.3 | Communications, utilities and miscellaneous charges | 80,387 | 89,000 | 89,000 |
| 24 | Printing | 150,416 | 79,000 | 81,000 |
| 25 | Other services | 242,869 | 260,000 | 252,000 |
| 26 | Supplies and materials | 109,307 | 83,000 | 82,000 |
| 31 | Equipment | 140,110 | 37,000 | 39,000 |
| Total other objects | | 733,361 | 560,000 | 555,000 |
| Total direct obligations | | 5,452,824 | 5,881,000 | 5,899,000 |
| Position Data: | | | | |
| Average Salary, ES positions | | $113,909 | $117,359 | $118,562 |
| Average Salary, GM/GS positions | | $55,549 | $59,580 | $59,968 |
| Average Grade, GM/GS positions | | 11.72 | 11.76 | 11.70 |

## OFFICE OF BUDGET AND PROGRAM ANALYSIS

The estimates include appropriation language for this item as follows (new language underscored, deleted matter enclosed in brackets):

Office of Budget and Program Analysis

For necessary expenses of the Office of Budget and Program Analysis, including employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), of which not to exceed $5,000 is for employment under 5 U.S.C. 3109, [$5,881,000] $5,899,000

## OFFICE OF BUDGET AND PROGRAM ANALYSIS

| | |
|---|---|
| Appropriations Act, 1994 | $5,881,000 |
| Budget Estimate, 1995 | 5,899,000 |
| Increase in Appropriation | +18,000 |

### SUMMARY OF INCREASES AND DECREASES
(on basis of appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Budget and Program Analysis | $5,881,000 | +$54,000 | -$36,000 | $5,899,000 |

### Project Statement
(on basis of appropriation)

| Item of Change | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Budget and Program Analysis | $5,452,824 | 71 | $5,881,000 | 74 | +$18,000 | $5,899,000 | 74 |
| Unobligated balance | 303,176 | -- | -- | -- | -- | -- | -- |
| Total Appropriation | 5,756,000 | 71 | 5,881,000 | 74 | +18,000(1) | 5,899,000 | 74 |

### Explanation of Program

The Office of Budget and Program Analysis provides direction and administration of the Department's budgetary functions including development, presentation, and administration of the budget; reviews program and legislative proposals for program and budget and related implications; analyzes program and resource issues and alternatives, and prepares summaries of pertinent data to aid Departmental policy officials and agency program managers in the decision-making process; provides Department-wide coordination for and participation in the presentation of budget related matters to the Committees of the Congress, the press, and the public. The Office also provides Department-wide coordination of the preparation and processing of the legislative program and legislative reports; provides Department-wide coordination and processing of regulations; and aids the Secretary and other Departmental agency officials in making management decisions regarding the Department's programs and resources.

Under the Secretary's proposed reorganization, the functions of the Office of Budget and Program Analysis will be transferred to Executive Operations.

### JUSTIFICATION OF INCREASES AND DECREASES

(1) A net increase of $18,000 for budget and program analysis consists of:

(a) A decrease of $126,000 for a reduction in Federal employment costs

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in the Federal employment, OBPA is reducing its employment.

Nature of Change. For FY 1995, the total reduction in personnel costs amounts to $126,000. Personnel reductions will be taken so as to reduce the number of managers and supervisors to other personnel while protecting the gains made in recent years to diversify the workforce.

(b) A decrease of $20,000 for administrative efficiency.

Need for Change. In support of the Seceretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $20,000.

Nature of Change. In order to achieve these savings, OBPA will reduce discretionary expenses by, $20,000 in FY 1995, in areas such as training, printing and reproduction costs and telephone usage.

(c) An increase of $54,000 for pay increases.

(d) An increase of $95,000 to cover anticipated SES retirement costs.

Need for Change. OBPA is faced with 1 potential Senior Executive Service (SES) retirement.

Nature of Change. Funds will be used to cover the lump sum payment for annual leave for the employee.

(e) An increase of $15,000 which reflects a 2.6 percent increase in non-salary costs.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Washington, D.C. | $5,452,824 | 71 | $5,881,000 | 74 | $5,899,000 | 74 |
| Unobligated balance | 303,176 | -- | -- | -- | -- | -- |
| Total, Available or Estimate | 5,756,000 | 71 | 5,881,000 | 74 | 5,899,000 | 74 |

# OFFICE OF BUDGET AND PROGRAM ANALYSIS

## STATUS OF PROGRAM

The Office of Budget and Program Analysis (OBPA) coordinates the preparation of departmental budget estimates and legislative reports; administers systems for the allotment and apportionment of funds; provides policy, program and budgetary analysis of USDA programs and proposals; and provides staff assistance to USDA agencies in meeting their responsibilities for the development and review of regulations.

In carrying out these responsibilities, OBPA assists the Secretary, Deputy Secretary, and other policy officials of the Department in the development, presentation, execution, and monitoring of the Department's budget. OBPA provides general oversight, review, and analysis related to alternative policies and resource levels. OBPA represents the Department at meetings and hearings with Congressional Committees, the Office of Management and Budget (OMB), the General Accounting Office (GAO), the Department of the Treasury and others on matters related to the Department's budget, legislative and regulatory programs.

Current Activities:

Development and Presentation of the USDA Budget

-- Reviews and analyzes agency budget estimates and develops alternatives and supporting data for the Secretary.

-- Consolidates materials for the budget submitted to OMB. Serves as liaison with OMB staff during their review of the Budget Estimates.

-- Prepares Department-wide budgetary statements and summaries.

-- Coordinates and prepares supporting justifications for budget requests to be presented to the Appropriations Committees.

-- Serves as liaison with the Appropriations Committees and their staffs for the purpose of scheduling hearings, reviewing transcripts, and answering questions concerning USDA programs.

-- Prepares and consolidates information requested by the appropriations, authorizing, and budget committees, and the Congressional Budget Office (CBO), including special budgetary analyses. reports, and appropriations hearings materials.

Management of USDA Funds and Staff-Years

-- Issues allotments and apportionments which allocate funds in accordance with laws, regulations, and the requirements of the Executive Branch and Congress.

-- Monitors and analyzes the Department's use of staff-year resources.

Program Analysis

-- Coordinates and/or conducts policy and program analyses and other reviews to assist agency and senior policy officials in formulating and implementing USDA policies and programs.

-- Reviews and analyzes legislation. regulations, and policy options to determine their impact on USDA programs and policy objectives and on the Department's budget.

-- Monitors ongoing studies with significant program or policy implications and periodically publishes the USDA Study Agenda which provides the current status of each study.

Coordination of Regulatory Decisions

-- Reviews and assists in development of regulations and impact analyses used in regulatory decision making.

-- Maintains the Regulatory Tracking System to inform senior policy officials of the status of proposed regulations.

-- Coordinates and assists in preparation of the USDA portion of OMB's Regulatory Program and the Regulatory Agenda.

-- Maintains liaison with OMB, other Federal agencies and the Congress on the review of rules.

Coordination of Legislative Proposals and Reports

-- Coordinates and assists in the preparation of bills, resolutions, reports and other legislative materials for submission to the Congress.

-- Compiles and produces the USDA Legislative Program which lists pending Administration proposals by subject areas.

-- Maintains the Legislative Reports Tracking System to inform senior policy officials of the status of legislative proposals and reports.

Selected Examples of Recent Progress:

Automation. During FY 1993, OBPA expanded its use of the recently installed officewide automation system. Through the use of a local area network (LAN), the capacity of the staff to communicate quickly and efficiently was greatly facilitated. Plans are moving forward to tie the OBPA network into the networks of other agencies of the Department and the MAX system at the OMB. Actions were also taken to improve the system reliability and availability. Follow-up training courses were offered to improve the ability of the staff to make maximum use of the system's capabilities. On balance, the system has been integrated into the working inventory of the office and is effectively filling its support and work facilitation role.

Legislative Reports Tracking System. The Legislative Reports Tracking System continues to be a key element in OBPA's efforts to coordinate, monitor and provide information on the large volume of legislative reports, proposals, bills, and resolutions received by the Department. During FY 1993, OBPA assisted in the preparation of over 600 legislative reports.

Major Legislation. During FY 1993, Congress enacted legislation authorizing payments to farmers who suffered crop losses due to floods and other adverse weather conditions. It also enacted the Omnibus Budget Reconciliation Act of 1993 to lower the Federal deficit as well as annual agricultural appropriations legislation. OBPA prepared budget impact analyses and discussion papers which were used both within the Executive Branch and by the Congress in enacting this legislation.

USDA Reorganization. OBPA assisted in providing analysis and documentation for the Secretary's proposed reorganization plan. Staffing and administrative budget saving estimates were also developed. Analyses of the National Performance Review recommendations on departmental reorganization proposals were also made.

Budget Summary. OBPA presented a series of technical, non-policy budget briefings for Congressional staff, the news media, special interest groups, and the general public when the Administration issued its FY 1994 budget proposals. These briefings were attended by over 100 Congressional staff and members of the press and were broadcast on USDA's closed circuit TV. OBPA also distributed about 2,000 copies of the Budget Summary document to Congressional Committees, the press, State governments, farm groups, and others interested in USDA programs.

# WORLD AGRICULTURAL OUTLOOK BOARD

## Purpose Statement

The World Agricultural Outlook Board (WAOB) was created by the Secretary of Agriculture on June 3, 1977, under the authority of the Reorganization Plan No. 2 of 1953. The WAOB serves as the single focal point for the Nation's economic intelligence related to domestic and international food and agriculture, and is responsible for coordination and clearance review of all commodity and aggregate agricultural and food-related data used to develop outlook and situation material within the Department of Agriculture. The WAOB's primary objective is to improve the consistency, objectivity and reliability of outlook and situation material developed in the Department.

WAOB functions include: information dissemination; market surveillance; coordination of assessments of international and domestic agricultural developments; improvement of forecasting techniques; and coordination of weather, climate and remote sensing activities.

The WAOB is located in Washington, D.C. As of September 30, 1993, there were 30 full-time employees. Budget, personnel, administrative and general managerial support are provided by the Economics Management Staff.

WORLD AGRICULTURAL OUTLOOK BOARD

Available Funds and Staff-Years

1993 Actual and Estimated 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| World Agricultural Outlook Board | $2,537,000 | 30 | $2,566,000 | 34 | $2,631,000 | 34 |
| Obligations under Other USDA appropriations: | | | | | | |
| Economic Research Service for Annual Outlook Conference | 28,500 | -- | 10,800 | -- | 10,800 | -- |
| Extension Service for Annual Outlook Conf. | 19,000 | -- | 19,000 | -- | 19,000 | -- |
| Foreign Agricultural Service for Annual Outlook Conference | 9,500 | -- | 9,500 | -- | 9,500 | -- |
| Total, Other USDA Appropriations | 57,000 | -- | 39,300 | -- | 39,300 | -- |
| Total, Agriculture Appropriations | 2,594,000 | 30 | 2,605,300 | 34 | 2,670,300 | 34 |
| Total, World Agricultural Outlook Board | 2,594,000 | 30 | 2,605,300 | 34 | 2,670,300 | 34 |

WORLD AGRICULTURAL OUTLOOK BOARD

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | 1993 Headquarters | 1994 Headquarters | 1995 Headquarters |
|---|---|---|---|
| ES-5 | 1 | 1 | 1 |
| ES-4 | 1 | 1 | 1 |
| Senior Level | 1 | 1 | 1 |
| GS/GM-15 | 9 | 9 | 9 |
| GS/GM-14 | 2 | 2 | 2 |
| GS/GM-13 | 3 | 4 | 4 |
| GS-12 | 4 | 5 | 5 |
| GS-11 | 1 | 1 | 1 |
| GS-10 | 1 | 1 | 1 |
| GS-9 | 1 | 3 | 3 |
| GS-7 | 5 | 5 | 5 |
| GS-6 | 1 | 1 | 1 |
| Total Permanent Positions | 30 | 34 | 34 |
| Unfilled Position end-of-year | -- | -4 | -4 |
| Total, Permanent Employment, end-of-year | 30 | 30 | 30 |
| Staff-Years | 30 | 34 | 34 |
| Total | 30 | 34 | 34 |

WORLD AGRICULTURAL OUTLOOK BOARD

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| Personnel Compensation: | | | |
| Headquarters | $1,748,273 | $1,781,000 | $1,800,000 |
| Field | -- | -- | -- |
| 11 Total personnel compensation | 1,748,273 | 1,781,000 | 1,800,000 |
| 12 Personnel benefits | 264,123 | 271,000 | 274,000 |
| Total pers. comp. & benefits | 2,012,396 | 2,052,000 | 2,074,000 |
| Other Objects: | | | |
| 21 Travel | 27,067 | 42,000 | 42,000 |
| 22 Transportation of things | 814 | 1,000 | 1,000 |
| 23.3 Communications, utilities, and misc. charges | 80,424 | 72,000 | 72,000 |
| 24 Printing and reproduction | 20,516 | 32,000 | 32,000 |
| 25.2 Other services | 225,396 | 236,000 | 277,000 |
| 25.3 Purchases of goods and services from Govt. accounts | 13,000 | 13,000 | 13,000 |
| 26 Supplies and materials | 57,685 | 53,000 | 55,000 |
| 31 Equipment | 89,070 | 65,000 | 65,000 |
| 43 Interest and dividends | 148 | -- | -- |
| Total other objects | 514,120 | 514,000 | 557,000 |
| Total direct obligations | 2,526,516 | 2,566,000 | 2,631,000 |
| Position Data: | | | |
| Average Salary, ES positions | $105,567 | $105,567 | $107,678 |
| Average Salary, GS positions | $33,623 | $42,056 | $49,002 |
| Average Grade, GS positions | 11.1 | 11.7 | 12.6 |

# WORLD AGRICULTURAL OUTLOOK BOARD

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

World Agricultural Outlook Board:

> For necessary expenses of the World Agricultural Outlook Board to coordinate and review all commodity and aggregate agricultural and food data used to develop outlook and situation material within the Department of Agriculture, as authorized by the Agricultural Marketing Act of 1946 (7 U.S.C. 1622g), [2,566,000] $2,631,000: Provided, That this appropriation shall be made available for employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225).

# WORLD AGRICULTURAL OUTLOOK BOARD

## SALARIES AND EXPENSES

| | |
|---|---|
| Appropriation Act, 1994 | $2,566,000 |
| Budget Estimate, 1995 | 2,631,000 |
| Increase in Appropriation | +65,000 |

### Summary of Increase and Decreases
(On basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Annualization of FY 1995 Pay Raise | -- | +$22,000 | -- | +$22,000 |
| Non pay inflation | -- | -- | +$14,000 | +14,000 |
| Meteorological Data Base Expansion for Emerging Economies | -- | -- | +44,000 | +44,000 |
| Administrative overhead reduction | -- | -- | -15,000 | -15,000 |
| All Other | $2,566,000 | -- | -- | 2,566,000 |
| Total Available | 2,566,000 | +22,000 | +43,000 | 2,631,000 |

### Project Statement
(On basis of adjusted appropriation)

| Project | 1993 Actual | | 1994 Estimated | | Increase | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | | Amount | Staff-Years |
| Commodity and Aggregate and Agricultural and Food Outlook Situation | $2,526,516 | 30 | $2,566,000 | 34 | +$65,000 | $2,631,000 | 34 |
| Unobligated balance | 10,484 | | -- | | -- | -- | |
| Total Available or estimate | 2,537,000 | 30 | 2,566,000 | 34 | +65,000 | 2,631,000 | 34 |
| Total appropriation | 2,537,000 | 30 | 2,566,000 | 34 | | | |

## WORLD AGRICULTURAL OUTLOOK BOARD

### EXPLANATION OF PROGRAM

The World Agricultural Outlook Board (WAOB) coordinates and reviews for clearance all commodity and aggregate agricultural data used to develop outlook and situation materials within the U.S. Department of Agriculture. The WAOB provides a focal point for the Nation's economic intelligence relative to domestic and foreign agriculture, with two primary objectives: improving the consistency, objectivity, reliability and timeliness of outlook and situation material being disseminated to the public; and integrating USDA domestic and international economic information. In a cooperative effort with the National Oceanic and Atmospheric Administration, the WAOB operates the Joint Agricultural Weather Facility, which provides agricultural impact assessments of significant weather developments, both domestic and foreign. The WAOB's functions include market surveillance; coordination of assessments of domestic and foreign agricultural developments; evaluation of forecasting techniques; coordination of USDA weather, climate and remote sensing activities; and information dissemination. Under the Secretary's proposed reorganization, the function of the World Agricultural Outlook Board would be transferred to Executive Operations.

### JUSTIFICATION OF INCREASES AND DECREASES

(1) An increase of $65,000 for Commodity and Aggregate Agricultural and Food Outlook and Situation consisting of:

(a) An increase of $22,000 for 1.6 percent for fiscal year 1995 pay costs.

(b) An increase of $14,000 which reflects a 2.6 percent increase in non-salary costs.

Need for Change. These funds are necessary to offset increased operating costs. Continued absorption of these increased operating costs will severely affect the quality and quantity of our program.

Nature of Change. This increase will be used to maintain a current level of services associated with inflation which affects the critical parts of the program.

(c) An increase of $44,000 to fund the Meteorological Data Base Expansion for Emerging Economies.

Need for Change. This initiative would enable the WAOB to enhance the Joint Agricultural Weather Facility's (JAWF) early warning system for monitoring the impact of weather as it affects the food situation and outlook in emerging economies (developing and formerly centrally planned). Information collected will be used to support several activities, including forecasting U.S. exports, assessing short-term food aid needs, and developing long-term marketing strategies. This effort will furnish USDA commodity analysts with alerts and analyses of weather's impact on crop yields and provide policymakers with substantially more lead time to develop action plans in response to global food crises.

Nature of Change. The WAOB will use the funds to enhance their meteorological data base for the JAWF through cooperative agreements with academic institutions and international organizations. This effort will strengthen the linkages between research and operational applications by promoting data sharing and technology transfer among agencies and institutions.

(d) A decrease of $15,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $15,000.

Nature of Change. In order to achieve these savings, WAOB will reduce discretionary expenses by $15,000 in FY 1995, in areas such as travel, training, supply purchases, printing and reproduction costs, utility usage, and curtail its agreements with other Federal agencies.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| District of Columbia | $2,526,516 | 30 | $2,566,000 | 34 | $2,631,000 | 34 |
| Unobligated Balance | 10,484 | -- | -- | -- | -- | -- |
| Total Available or Estimate..... | 2,537,000 | 30 | 2,566,000 | 34 | 2,631,000 | 34 |

# WORLD AGRICULTURAL OUTLOOK BOARD

## STATUS OF PROGRAM

The World Agricultural Outlook Board (WAOB) coordinates and reviews for clearance all commodity and aggregate agricultural and food-related data used to develop outlook material within the U.S. Department of Agriculture. Prior to the creation of WAOB on June 3, 1977, agricultural outlook data were collected, analyzed and reported by several agencies in USDA. The Board's role is to coordinate and assure the accuracy, timeliness and objectivity of USDA's agricultural outlook analyses. The Board not only directs the compilation and review of critical economic intelligence data, it also makes sure the essential information quickly reaches policy makers and the public, especially the U.S. farmer.

Current Activities: WAOB functions include: information dissemination; market and agricultural weather surveillance; coordination of USDA forecasts of international and domestic agricultural developments; and coordination of weather, climate and remote sensing research activities.

The Board presents weekly briefings of significant agricultural developments to the Secretary and other top officials, supplemented by a daily market intelligence report.

Selected Examples of Recent Progress: As a part of USDA's ongoing economic information program, the WAOB continued to publish the monthly World Agricultural Supply and Demand Estimates (WASDE) report, which provides projections of world and U.S. supply and utilization data for grains, soybeans and cotton; and U.S. estimates for red meat, poultry, eggs and milk. The report also includes forecast reliability tables for selected commodities and parameters. During fiscal year 1993, coverage was expanded to include more detail about the former Soviet Union (FSU).

WAOB initiated special interagency meetings with the Foreign Agricultural Service (FAS) and Economic Research Service (ERS) to assure a coordinated response to data problems associated with the breakup of the Soviet Union. Commodity data for individual FSU countries and the Baltic states is now being reported in various USDA publications. With respect to weather information, WAOB made substantial progress in assembling meteorological and agronomic data from individual republics of the FSU. WAOB has obtained Oblast level data from the Central Intelligence Agency, the Federal Broadcast Information Service, FAS and ERS.

The Joint Agricultural Weather Facility (JAWF), operated by the WAOB and the National Oceanic and Atmospheric Administration, in cooperation with the National Agricultural Statistics Service, published the Weekly Weather and Crop Bulletin. The JAWF continued to monitor and interpret significant global weather developments and their implications for agriculture.

Monitoring and analyzing global commodity markets to facilitate accurate and timely outlook reporting and policy appraisals remains WAOB's primary focus. During a year highlighted by weather that plagued agriculture, WAOB provided policy makers and the public with early and frequent assessments of how crops here and abroad would likely be affected.

WAOB's analyses of the 1993 Midwest flood and Southeast drought provided support to the Office of the Secretary. Beginning with the May WASDE report, WAOB mustered all meteorological and economic resources available to produce U.S. production estimates for corn and soybeans, the two crops most affected. By July, it was apparent that the production forecasts for these two crops had to be significantly reduced even though NASS field surveys would not be available until August. WAOB focused on probable area reductions as a basis for deviating from the trend based projections published in May and June. The corn and soybean production forecasts published in the July WASDE report were readily accepted by the market, and proved to be a smooth

transition to the survey-based Crop Production report prepared by the National Agricultural Statistics Service (NASS) in August. As the crisis continued, WAOB integrated survey-based production forecasts by NASS into subsequent WASDE reports.

In the international arena, WAOB/JAWF provided FAS with early warning of the pending shortfall of Japan's 1993 rice crop. JAWF provided a running assessment of these events which were tracked by satellite imagery and meteorological reports. Based on the JAWF alert, FAS requested a special assessment of the situation from the FAS counselor/attache in Tokyo. As a result, USDA quickly adjusted its estimate of Japanese rice ahead of official Japanese statements and press reports. Heads-up analysis by USDA provided the U.S. rice trade with advanced notice of a potential market.

The WAOB sugar analyst traveled to China as leader of a team organized under the auspices of the USDA-Chinese Ministry of Agricultural technical exchange program. The team traveled extensively in China and exchanged information on sugar production and marketing in the two countries. USDA analyses of the world sugar situation and outlook are benefiting from the information collected.

WAOB commodity specialists participated in numerous interagency analyses related to the North American Free Trade Agreement and Uruguay Round of the General Agreement on Tariffs and Trade. The results of the assessments were provided to U.S. negotiators.

With responsibility for chairing all Interagency Commodity Estimates Committees, the WAOB continued to further advance and focus USDA's economic information system. For the purpose of improving USDA's longer term commodity supply and demand and farm sector projections, WAOB directed the activities of the Interagency Agricultural Projections Committee (IAPC). The IAPC provided farm program and macroeconomic assumptions to the Interagency Commodity Estimates Committees to assure uniformity in the preparation of interagency projections. The IAPC reviewed livestock and crop projections and farm income forecasts for internal consistency. These projections were used for budget and planning purposes.

WAOB's Remote Sensing Coordinator facilitated information exchanges on remote sensing projects and activities among USDA agencies to avoid duplication of effort and ensure optimum use of resources. USDA's information requirements will receive high priority in future satellite systems. Better interchange among agencies and the private sector has resulted in sharing of data and resources and the avoidance of unnecessary costs.

Action by the Remote Sensing Coordinator enabled USDA's Forest Service to purchase satellite imagery from SPOT Image Corporation at a substantial discount. SPOT had assembled an offer package requiring a purchase too large for the Forest Service alone. Because no other USDA agency was in need of imagery, the Coordinator reached out to the National Aeronautical and Space Administration (NASA) and the U.S. Geological Survey (USGS) to find potential partners. This grew into a joint counterproposal by USDA and seven other Federal agencies which SPOT accepted.

WAOB coordinated USDA's contribution to the annual Aeronautics and Space Report of the President: Fiscal Year 1993 Activities. This recurring project requires contact with and solicitation of significant achievements from the agencies that are dominant in remote sensing.

Existing links with the Commodity Futures Trading Commission (CFTC) were continued under a formal CFTC-USDA agreement to ensure that the futures markets best serve the interests of both farmers and consumers.

On November 30 and December 1, USDA hosted Outlook '94, the Department's 70th Annual Outlook Conference. More than 700 participants, including many from abroad and 75 press representatives registered for the conference, which featured 22 topical

sessions focusing on the outlook for farmers and consumers. The opening day was televised nationally via satellite, and C-SPAN recorded selected sessions for delayed broadcast. Secretary Espy keynoted the conference with his vision of new priorities for USDA. In the plenary sessions which followed, prominent speakers from within USDA and invited experts addressed economic outlook, trade prospects, rural development, environmental policy and food safety and nutrition issues. Day two of the conference highlighted commodity sessions, food prices, farm finance and other topics of special interest.

# OFFICE OF THE INSPECTOR GENERAL

## Purpose Statement

Pursuant to the Inspector General Act of 1978, (5 U.S.C. app. 3), the Office of the Inspector General:

(1) Provides policy direction and conducts, supervises and coordinates all audits and investigations;

(2) reviews existing and proposed legislation and regulations and makes recommendations to the Secretary and Congress regarding the impact such initiatives will have on the economy and efficiency of the Department's programs and operations, and the prevention and detection of fraud, waste and mismanagement in such programs;

(3) recommends policies for and conducts, supervises or coordinates other activities in the Department whose purposes are to promote economy and efficiency or prevent and detect fraud, waste and mismanagement;

(4) recommends policies for and conducts, supervises or coordinates relationships between the Department and other Federal, State and local government agencies concerning: (a) promoting economy and efficiency; (b) preventing and detecting fraud, waste and mismanagement; and (c) identifying and prosecuting people involved in fraud, waste and mismanagement; and

(5) keeps the Secretary and the Congress fully and currently informed about fraud, other serious problems, waste, mismanagement and deficiencies in Department programs and operations, recommends corrective action, and reports on the progress made in correcting the problem.

The Office of the Inspector General is headquartered in Washington, D.C., and has regional offices in the following cities: New York, New York; Hyattsville, Maryland; Atlanta, Georgia; Chicago, Illinois; Temple, Texas; Kansas City, Missouri; and San Francisco, California. As of September 30, 1993, total on-board employment was 826 including 815 full-time and 11 other employees. There were 220 employees located in the metropolitan area and 606 located in the field.

OFFICE OF THE INSPECTOR GENERAL

Available Funds and Staff Years

1993 Actual and Estimated 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Office of the Inspector General | $62,786,000 | 856 | $65,530,000 | 850 | $63,013,000 | 831 |
| Obligation under other USDA appropriations | | | | | | |
| Commodity Credit Corporation- Audit of Financial Statements | 752,000 | -- | 783,000 | -- | 815,000 | -- |
| Federal Crop Insurance Corporation-- Audit of Financial Statements | 216,000 | -- | 242,000 | -- | 242,000 | -- |
| Rural Electrification Administration-- Audit of Financial Statements | 233,000 | -- | 225,000 | -- | 225,000 | -- |
| Total, Othr USDA Funds: | 1,201,000 | -- | 1,250,000 | -- | 1,282,000 | -- |
| TOTAL, OIG | $63,987,000 | 856 | $66,780,000 | 850 | $64,295,000 | 831 |

OFFICE OF THE INSPECTOR GENERAL

Permanent Positions by Grade and Staff-Year Summary

FY 1993 and Estimated FY 1994 and 1995

| Grade | 1993 Hdqtrs | 1993 Field | 1993 Total | 1994 Hdqtrs | 1994 Field | 1994 Total | 1995 Hdqtrs | 1995 Field | 1995 Total |
|---|---|---|---|---|---|---|---|---|---|
| Executive Level IV ..... | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| ES 6 ..... | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| ES 4 ..... | 6 | 0 | 6 | 6 | 0 | 6 | 6 | 0 | 6 |
| ES 3 ..... | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| ES 2 ..... | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| GS/GM 15 ..... | 15 | 15 | 30 | 14 | 15 | 29 | 13 | 14 | 27 |
| GS/GM 14 ..... | 31 | 41 | 72 | 30 | 41 | 71 | 30 | 40 | 70 |
| GS/GM 13 ..... | 39 | 142 | 181 | 39 | 141 | 180 | 38 | 139 | 177 |
| GS-12 ..... | 12 | 262 | 274 | 12 | 260 | 272 | 12 | 254 | 266 |
| GS-11 ..... | 11 | 58 | 69 | 11 | 57 | 68 | 11 | 56 | 67 |
| GS-9 ..... | 6 | 72 | 78 | 6 | 72 | 78 | 6 | 71 | 77 |
| GS-8 ..... | 7 | 0 | 7 | 7 | 0 | 7 | 7 | 0 | 7 |
| GS-7 ..... | 18 | 40 | 58 | 18 | 40 | 58 | 18 | 37 | 55 |
| GS-6 ..... | 7 | 33 | 40 | 7 | 33 | 40 | 7 | 32 | 39 |
| GS-5 ..... | 6 | 26 | 32 | 6 | 26 | 32 | 6 | 25 | 31 |
| GS-4 ..... | 4 | 2 | 6 | 4 | 2 | 6 | 4 | 2 | 6 |
| Total Permanent Positions.... | 165 | 691 | 856 | 163 | 687 | 850 | 161 | 670 | 831 |
| Unfilled Positions End-of-year.. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total, Permanent Employment, End-of-year.. | 165 | 691 | 856 | 163 | 687 | 850 | 161 | 670 | 831 |
| Staff-Years Ceiling..... | 165 | 691 | 856 | 163 | 687 | 850 | 161 | 670 | 831 |

OFFICE OF THE INSPECTOR GENERAL

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| Personnel Compensation: | 1993 | 1994 | 1995 |
|---|---|---|---|
| Headquarters | $8,680,917 | $9,007,000 | $8,745,000 |
| Field | 32,855,573 | 34,090,000 | 33,235,000 |
| 11 Total personnel comp | 41,536,490 | 43,097,000 | 41,980,000 |
| 12 Personnel benefits | 9,401,456 | 9,924,000 | 9,690,000 |
| 13 Former personnel | 21,478 | 21,000 | 20,000 |
| Total personnel compensation benefits | 50,959,424 | 53,042,000 | 51,690,000 |
| **Other Objects:** | | | |
| 21 Travel | 5,289,585 | 5,750,000 | 5,700,000 |
| 22 Transportation of things. | 264,433 | 250,000 | 240,000 |
| 23.2 Rental Payments to others | 155,248 | 155,000 | 155,000 |
| 23.3 Communications, utilities, and misc. charges | 1,279,309 | 1,445,000 | 1,290,000 |
| 24 Printing and reproduction | 150,794 | 154,000 | 155,000 |
| 25.1 Consulting services | 40,000 | 40,000 | 40,000 |
| 25.2 Other services | 2,757,692 | 3,261,000 | 2,515,000 |
| 26 Supplies and materials | 784,749 | 705,000 | 700,000 |
| 31 Equipment | 814,626 | 700,000 | 500,000 |
| 42 Insurance and indemnities | 29,996 | 28,000 | 28,000 |
| 43 Interest and dividends | 331 | 0 | 0 |
| Total other objects | 11,566,763 | 12,488,000 | 11,323,000 |
| Total direct obligations | 62,526,187 | 65,530,000 | 63,013,000 |
| **Position Data:** | | | |
| Average Salary, ES positions | $108,000 | $111,000 | $116,000 |
| Average Salary, GM/GS positions | $46,000 | $49,000 | $51,000 |
| Average Grade, GM/GS positions. | 10.82 | 10.82 | 10.82 |

## OFFICE OF THE INSPECTOR GENERAL

The estimate includes proposed changes in the language of this item as follows (new language underscored; deleted matter enclosed in brackets):

Office of the Inspector General

For necessary expenses of the Office of the Inspector General, including employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and the Inspector General Act of 1978 as amended, [$65,530,000] $63,013,000, including such items as may be necessary for contracting and other arrangements with public agencies and private persons pursuant to section 6(a)[(8)](9) of the Inspector General Act of 1978, as amended, and including a sum not to exceed $50,000 for employment under 5 U.S.C. 3109; and including a sum not to exceed [$95,000] $125,000 for certain confidential operational expenses including the payment of informants, to be expended under the direction of the Inspector General pursuant to Public Law 95-452 and section 1337 of Public Law 97-98.

The first change in language reflects a revision of section 6(a)(8) of the Inspector General's Act of 1979. The OIG mission is now codified under section 6(a)(9) of that Act.

The second change proposes an increase from $95,000 to $125,000 for confidential funds. The $95,000 has been sufficient in the past for confidential activities; however, in 1993, demands for these funds have increased. Based on cases currently in process and because these needs are so unpredictable, we anticipate the need for the $95,000 limitation to be increased to $125,000 so that OIG may continue to run these undercover operations in an efficient manner.

# OFFICE OF THE INSPECTOR GENERAL

## SALARIES AND EXPENSES

| | |
|---|---|
| Appropriations Act, 1994 | $65,530,000 |
| Budget Estimate, 1995 | 63,013,000 |
| Decrease in Appropriation | -2,517,000 |

## SUMMARY OF INCREASES AND DECREASES
(On basis of appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Audit & Investigations | $65,530,000 | +$545,000 | -$3,062,000 | $63,013,000 |

## PROJECT STATEMENT
(On basis of appropriation)

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Audit and Investigations | $62,526,187 | 856 | $65,530,000 | 850 | -$2,517,000 (1) | $63,013,000 | 831 |
| Unobligated | 259,813 | -- | -- | -- | -- | -- | |
| Total, Appropriation | $62,786,000 | 856 | $65,530,000 | 850 | -$2,517,000 | $63,013,000 | 831 |

## EXPLANATION OF PROGRAM

This appropriation funds the activities authorized by the Inspector General Act of 1978 as amended. This Act expanded and provided specific authorities for the activities of the Office of the Inspector General which had previously been carried out under the general authorities of the Secretary of Agriculture. The Inspector General:

-- Conducts and supervises audits and investigations relating to programs and operations of the Department of Agriculture;

-- provides leadership and coordination and recommends policies for activities designed (a) to promote economy, efficiency, and effectiveness and (b) to prevent and detect fraud and mismanagement in programs and operations of the Department; and

-- keeps the Secretary and the Congress fully informed about problems and deficiencies relating to the administration of such programs and operations and the necessity for and progress of corrective action.

The following table shows the audits, investigations, and staff-years for each area for fiscal year 1993.

| Area | Audits/ Cases | Staff-Years of Effort |
|---|---|---|
| Audit | 360 | 491 |
| Investigations | 1,267 | 364 |
| Total | 1,627 | 855 |

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A net decrease of $2,517,000 consisting of:

(a) An increase of $545,000 for pay increases.

(b) An increase of $228,000 which reflects a 2.6 percent increase in nonsalary costs.

(c) A decrease of $340,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $340,000.

Nature of Change. In order to achieve these savings, OIG will reduce discretionary expenses by $340,000 in FY 1995 in areas such as equipment, supplies, and communication charges.

(d) A decrease of $950,000 for a reduction in Federal employment costs.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, OIG is reducing employment from the FY 1993 base.

Nature of Change. To achieve the reduction, OIG will streamline its operations. The total reduction in personnel costs amounts to $950,000. The agency expects to achieve this reduction by reviewing its existing organizational structure to determine if any offices could be consolidated or eliminated, and through attrition by filling only the most critical positions as vacancies occur.

(e) A decrease of $2,000,000 for OIG activities [$65,530,000 available in FY 1994].

Need for Change. In FY 1994, the Congress provided an additional $2,000,000 to the agency "to enhance the Inspector General's efforts in curtailing waste, fraud, and abuse in programs operated by and through the Department." Due to overall budget constraints, this additional level of resources for this activity cannot be sustained without causing an adverse impact on other essential programs in USDA.

Nature of Change. OIG will continue to devote resources on work related to the elimination of waste, fraud, and abuse within USDA. We expect this percentage of resources to continue in FY 1995, though at this reduced level.

## OFFICE OF THE INSPECTOR GENERAL

## GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS

1993 and Estimated 1994 and 1995

| Locations | FY 1993 Amount | FY 1993 Staff-Years | FY 1994 Amount | FY 1994 Staff-Years | FY 1995 Amount | FY 1995 Staff-Years |
|---|---|---|---|---|---|---|
| California ..... | $7,024,770 | 99 | $7,362,000 | 99 | $7,079,000 | 97 |
| D.C. ..... | 13,610,543 | 165 | 14,264,000 | 163 | 13,716,000 | 161 |
| Georgia ..... | 8,338,699 | 116 | 8,739,000 | 115 | 8,404,000 | 112 |
| Illinois ..... | 6,915,230 | 102 | 7,248,000 | 102 | 6,969,000 | 100 |
| Maryland ..... | 7,768,012 | 107 | 8,141,000 | 106 | 7,829,000 | 103 |
| Missouri ..... | 10,283,734 | 147 | 10,778,000 | 145 | 10,364,000 | 141 |
| New York ..... | 2,560,419 | 32 | 2,684,000 | 32 | 2,580,000 | 31 |
| Texas ..... | 6,024,780 | 88 | 6,314,000 | 88 | 6,072,000 | 86 |
| Subtotal, Available or Estimate .. | 62,526,187 | 856 | 65,530,000 | 850 | 63,013,000 | 831 |
| Unobligated Balance ..... | 259,813 | -- | -- | -- | -- | -- |
| Total, Available or Estimate .. | 62,786,000 | 856 | 65,530,000 | 850 | 63,013,000 | 831 |

# OFFICE OF THE INSPECTOR GENERAL

## STATUS OF PROGRAM

The Office of the Inspector General (OIG) is operationally independent of other agencies of the Department. OIG has the responsibility to: (1) supervise, coordinate, and provide policy direction for audit and investigative activities relating to programs and operations of the Department; (2) recommend policies and conduct, supervise, or coordinate other activities of the Department for the purpose of promoting economy and efficiency and preventing and detecting fraud, waste, and mismanagement in its programs and operations; (3) keep the Secretary and the Congress informed of fraud and other serious problems, waste, and deficiencies relating to the administration of programs and operations of the Department; and (4) recommend corrective action and report on progress made in obtaining management's agreement to implement such action.

## ACCOMPLISHMENTS IN FISCAL YEAR 1993

During Fiscal Year 1993, OIG issued 360 audit reports and 1,267 investigative reports. Investigations also had 944 indictments, 982 convictions, and 61 suits filed. The period of time to get court action on an indictment varies widely; therefore, the 982 convictions are not necessarily related to the 944 indictments.

Audit Monetary Results:

During FY 1993, management decisions were made on 322 audit reports. At the time of management decision, the monetary values agreed to by agencies were:

| | | (In millions) |
|---|---|---|
| Questioned and unsupported costs | | $ 62.8 |
| Recommended for recovery | $31.2 | |
| Not recommended for recovery | 31.6 | |
| Funds to be put to better use | | $197.1 |
| Total audit monetary results | | $259.9 |

Investigative Monetary Results:

| | |
|---|---|
| Recoveries and collections | $10.7 |
| Cost avoidance (payments not made based on investigations) | $ 3.5 |
| Fines | $13.5 |
| Administrative penalties | $ 0.6 |
| Restitutions | $15.1 |
| Total Investigative monetary results | $43.4 |

## AUDIT ACCOMPLISHMENTS

During FY 1993, we focused our audit efforts on consumer protection issues, Farmers Home Administration loan programs, disaster payments to farmers, and crop insurance. We also audited the Department's financial statements as required by the Chief Financial Officers Act.

Details of our significant audit accomplishments can be found in the Semiannual Reports to Congress covering FY 1993. Some highlights are provided below.

## CONSUMER PROTECTION

### Unsanitary Conditions at Meat Processing Plant Prompt Compliance Reforms

The Secretary requested that we review inspection activities at a Nebraska meat processing plant which was the subject of a network newscast depicting unsanitary conditions. We confirmed the reported practices and found that the plant had a history of sanitation violations, especially in the areas of rodent control and facility cleanliness and maintenance. The Food Safety and Inspection Service (FSIS) stepped up its enforcement action against the plant. We performed a followup review at the plant and found improvements. However, FSIS will need to continue providing intensive supervision over the plant's operations. We also provided testimony on our review to the House Government Operations Subcommittee on Human Resources and Intergovernmental Relations.

During our review, we found that FSIS had no mechanism to identify plants that potentially pose health risks. We concluded that FSIS needed an inspection policy for plants that pose problems because of their age, their poor maintenance, and the type of cattle slaughtered. This would permit FSIS to take proactive actions on problem plants rather than waiting to react through administrative enforcement actions. FSIS has agreed to our recommendations. In addition, an auditor and investigator worked with FSIS officials to improve their compliance review program. The team developed a comprehensive proposal which when implemented should result in quantifying establishment of health and food safety performance. It will identify high-risk plants for action by FSIS management and for compliance review purposes.

### AMS Deobligates $3 Million to Return to Treasury

The Agricultural Marketing Service (AMS) administers two of the Department's newest programs: the Pesticide Data Program (PDP) and the Pesticide Recordkeeping Program (PRP). We reviewed AMS' plans to implement these programs and to determine whether AMS' fiscal transactions for the programs complied with appropriations law. We found that AMS needs to reevaluate whether recordkeeping monitoring could be performed more efficiently by the Department's nationwide network of field offices rather than by the States. We also found that AMS improperly carried over FY 1991 PDP appropriations into FY 1993. Based on our recommendations, and AMS' further review, AMS deobligated $942,000 of FY 1991 funds and $2.1 million in FY 1992 funds. AMS is now in the process of drafting Standard Operating Procedure for Finance that should prevent this from occurring in the future.

### New Audit Requirements Will Improve Compliance with Marketing Orders

Thirty-nine marketing orders regulate the quantity and quality of 30 fruits, vegetables, and specialty crops. Administrative committees are responsible for administering marketing orders and ensuring compliance with their terms. In collaboration with AMS personnel, and in consultation with various committee representatives, we developed uniform audit procedures to be used by committees in conducting reviews at handlers' places of operation. These new procedures call for an evaluation of whether the handlers paid the proper amount of assessments to the committees and whether they met marketing order provisions governing the amount of commodities that can be purchased, sold, or disposed of. The procedures should provide uniform treatment of handlers and growers and give assurance that the committees have a sound basis for determining marketing order violations.

### APHIS Collects $1.3 Million in Overlooked Fees

did not have a system to identify airlines and railroads required to remit fees, as our audit identified several carriers had not remitted $1.8 million. We recommended that APHIS collect the $1.8 million and implement a system to identify all airlines and railroads required to remit fees. APHIS agreed with our recommendations. Two people are now dedicated to conducting reviews at airline, railroad, vessel, trucking and other user companies to determine user fee payment accuracy and have uncovered an additional $4.8 million in fees due APHIS.

LOAN PROGRAMS

Incorrect Loss Determinations in Writedown of Guaranteed Loans

Lenders participating in the Farmer Guaranteed Loan Program did not determine their losses or apply their loss payments correctly or consistently. Our review showed at least one error in the debt writedown for each of the borrowers reviewed resulting in overpayments totaling $4.9 million. In total, the Farmers Home Administration (FmHA) erroneously paid loss payments for 89 percent of the borrowers reviewed. FmHA officials agreed to go back and review the identified overpayments and underpayments and then take the appropriate action.

Excessive Construction Costs Charged to Rural Rental Housing (RRH) Projects

Excessive construction costs totaling $2.8 million were found in 19 RRH projects. The excessive charges included unallowable, unsupported, and duplicate costs such as: (1) operational and start-up costs related to the management of the project, (2) legal fees not related to construction, (3) construction costs for facilities not approved by FmHA, (4) costs not incurred by the borrower, and (5) small tool and industrial equipment purchases. In addition, four borrowers misrepresented their roles as general contractors, resulting in excessive costs from profits charged by second parties who actually performed those duties. These charges resulted in general contractor profits being included at least twice in the loan amounts. We found FmHA had also incurred over $208,000 in interest credit subsidy on the excessive costs. FmHA officials agreed to recover excessive construction costs resulting from unsupported, unallowable, and duplicate charges to FmHA projects.

FOREST SERVICE (FS)

Timber Management--Timber Sale Cruising Controls

In FY 1992, the FS collected approximately $1 billion from the sale of national forest timber. Timber "cruising" is the primary method for estimating the volume of timber which will be included in a proposed sale. Based on our audit, we concluded that the FS could not assure that its cruises were reliable, supportable, and effective. FS cruisers were often not proficient or trained in the various sampling methods, which differed depending on terrain, species, mix, and distribution; consequently, there was no assurance that cruisers were selecting the most cost-effective method. In addition, low pay and limited career advancement for cruisers impede the development and retention of a quality cruising workforce. FS officials are implementing corrective actions.

Graduated Rate Fee System for Large Resorts

In FY 1991, fees from recreation permits totaled $28 million, with the top 75 winter ski resorts paying almost half of this total, about $13.3 million. However, winter ski resort fees represented less than 2 percent of the corresponding total sales revenue of $723.5 million. We concluded that the existing fee system, developed by the FS in 1965, is outdated and, among other things, does not account for the significant appreciation of FS land. Several

permit holders received large gains (in one case, a $40 million profit) from the sales of their resorts on FS lands, but the FS did not share in these gains. We recommended that the FS establish a fee system that would ensure a fair market return. FS officials are currently formulating an alternative fee system.

PROGRAM COMPLIANCE, ECONOMY AND EFFICIENCY

USDA Could Do More to Control Workers' Compensation Costs

The Federal Employees' Compensation Act (FECA) provides compensation for Federal civilian employees injured while performing their duties. While the U.S. Department of Labor administers the FECA, USDA is responsible for submitting claims and providing job placement assistance for those employees who can return to work. In USDA, FECA costs rose steadily from $37.9 million in 1988 to $55.1 million in 1992. Our audit showed that of the claimants receiving benefits totaling $39.4 million between the period July 1990 and June 1991, medical reports showed that 16 percent could have returned to work, saving $15.5 million in wage compensation since the time they were reemployable or $135 million over their life expectancies. Office of Finance and Management officials agreed and developed a plan to review all long-term cases to identify claimants who are able to work and coordinate job placement assistance for them.

ACCOUNTING AND FINANCIAL MANAGEMENT

Financial Statements for the Department and Seven of its Agencies Audited: Six Unqualified and Two Adverse Opinions Issued

As required by the Chief Financial Officers Act of 1990, we completed eight financial statement audits. We issued unqualified (clean) opinions on the FY 1992 financial statements of the Commodity Credit Corporation, Federal Crop Insurance Corporation (FCIC), FmHA, Food and Nutrition Service, Rural Electrification Administration, and the Rural Telephone Bank. Audits of the Forest Service and the Departmental statements resulted in adverse opinions, largely because the Department had not had sufficient time to fully initiate corrective actions concerning the deficiencies found in the FY 1991 statements.

Correcting these deficiencies involves changes in financial processes and systems requiring long-term efforts which cannot be completed in a single year. The Department and its agencies have put considerable effort into improving their financial systems and the financial reporting process. The Department established a coordinating committee of senior financial management officials and formed working groups in such areas as financial statement form and content, credit reform accounting, and quality control. The Department also initiated the Financial Information System Vision and Strategy (FISVIS) project, whose aim is to develop a blueprint for a single integrated financial system that meets all Treasury and Office of Management and Budget requirements, incorporate all generally accepted accounting principles, and fulfill the needs of USDA. We continue to assist Departmental officials in these efforts.

AUTOMATED DATA PROCESSING (ADP) SYSTEMS

ADP Acquisition Planning and Oversight Need Improvement

We evaluated the adequacy of Agricultural Stabilization and Conservation Service's (ASCS) ADP acquisition planning. An evaluation of an ADP acquisition with estimated life-cycle costs of over $1 billion disclosed that senior agency managers assigned the responsibility of project oversight were not actively involved in project decision making. A committee of senior managers whose task was to review all system plans and proposals rarely met to

discuss the direction and scope of the acquisition. The absence of management oversight contributed to unneeded cost growth, schedule delays, and user needs not being met in the ADP systems area.

We also reviewed two acquisitions of personal computers and related hardware and software and found inadequate planning and oversight which left users unprepared to receive, use, and account for new equipment when it arrived.

ASCS agreed to implement better controls over computer project planning, adhere to applicable requirements, and ensure that senior agency managers take a more active role in major acquisitions.

Audits in Two Agencies Disclosed Vulnerable Computer Systems

We evaluated the National Agricultural Statistics Service's (NASS) security and controls over the automated resources used to transmit and process sensitive statistical forecasting data, particularly for speculative commodities. We concluded that NASS should designate additional commodities as speculative commodities. This would require NASS to encrypt the data during transmission from the field to headquarters, and further limit access to the data until it is released to the public. NASS also needs to implement better controls over the encryption process, and tighten access controls over its local area network and sensitive files on the mainframe.

We also performed an audit of the security and controls over ASCS' State and County Office Automation Project (SCOAP). We identified weaknesses in such areas as validity checks of program eligibility and payment computations, controls over system access, security over sensitive data, software management and control, and assignments of security classifications for individual sites.

FARM PROGRAMS

Marketing Loan Cost for Rice and Cotton Increased $183.3 Million Because of Inaccurate Adjusted World Prices

ASCS uses adjusted world prices of rice and cotton to determine the loan deficiency payments and the loan repayment discounts on these commodities. We found that the adjusted world prices of rice and cotton were understated during crop years 1991 and 1992, which increased payments and discounts by $183.3 million. This occurred primarily because ASCS did not have procedures for collecting and updating data used in its calculation of adjusted world prices. ASCS officials agreed to update their formula components, develop procedures for periodic review, and review the new data.

Controls Over Disaster Assistance for Nonprogram Crops Are Inadequate To Prevent Abuse

Audits and a joint OIG/ASCS review of disaster assistance for nonprogram crops (squash, cucumbers, etc.) in five States disclosed a pattern of abuse by producers and a weakness in ASCS' controls over disaster payments. The abuse occurred because the expectation of disaster assistance encourages some producers to plant a crop they do not intend to harvest, and because procedures make it difficult for ASCS to verify that a nonprogram crop was damaged or lost. The audits covered 237 producers who received about $5.7 million in disaster assistance during the 1990 through 1992 crop years. We questioned about $3 million paid to 79 of the producers, including two ASCS county committee members. One of the audits also prevented an estimated $3.5 million in improper disaster payments.

ASCS Corrects Disaster Payment Excesses on Low-Quality Grain

We reviewed ASCS policy for determining disaster payments for a quality loss on 1992 corn. This review disclosed that the loss adjustments ASCS made were

excessive resulting in unwarranted expenditures. Since ASCS officials were planning to use a similar policy to make quality loss adjustments for other crops, they requested that we determine if the same conditions existed elsewhere. Our further review found that proposed ASCS quality loss adjustments for other crops would also result in excessive payments. ASCS officials promptly developed more realistic adjustments. ASCS used our review to reevaluate its method of calculating loses due to poor quality.

Improvements Needed in ASCS End-of-Year Review Process

ASCS performed end-of-year reviews for 836 producers who received about $79 million in payments in 1991. Of these, ASCS identified erroneous payments totaling about $5 million for 39 producers. We reviewed a random sample of the 836 producers and projected that 181 did not comply with their farm operating plans and/or payment limitation rules and, therefore, were not entitled to program payments totaling about $16.5 million. We recommended that ASCS improve its end-of-year review procedures to achieve better control over separation of duties, documentation of review results, and second party reviews. In addition, we recommended that ASCS collect the questionable payments ($1.6 million) associated with specific cases we reviewed. ASCS has issued revised procedures and is currently reviewing OIG's findings on the specific cases.

More Effective Bid Evaluation Process Needed for Conservation Reserve Program (CRP)

Although substantial improvements have been made in the CRP bid evaluation process, we concluded that the process could be made more effective. In a statistical sample of 109 bids out of almost 7,000 accepted in March 1991, we found inaccuracies in how soil data was identified and weaknesses in how procedures were applied. Errors were made in accumulating CRP bid data, and neither ASCS nor the Soil Conservation Service had controls to identify and correct the mistakes. ASCS reprocessed the errors noted in our sample by using the corrected data and found that 11 of the 109 bids should have been rejected. We projected that about 325 bids, with a value of $14 million, were incorrectly accepted in March 1991, while other bids that offered greater environmental benefits at a lower cost were rejected. ASCS agreed with the need to improve the reliability of data used in the bid evaluation process.

INSURANCE

Loss Adjustment Overpayment Errors

Our review of crop insurance losses showed that FCIC overpaid at least $8 million on FY 1991 claims because loss adjusters did not always determine correct production, acreage and unit division. The true value of the overpayments may be substantially higher. FCIC paid $952.4 million in indemnities on 202,835 claims in FY 1991. Reinsured companies shared in little of the risk involved in losses on reinsured policies, consequently, they had little incentive to ensure that claims were paid correctly. Furthermore, corrective actions recommended in a previous audit of FCIC's loss adjustments had not been fully implemented, therefore, similar errors continued. FCIC officials generally concurred with our recommendations or provided acceptable alternatives.

SCIENCE AND EDUCATION

Research Center Charged With Nepotism, Improper Expenditures

The Agricultural Research Service (ARS) asked us to resolve an anonymous complaint that alleged unethical management, improper accounting and inappropriate use of Federal research funds at a facility working under a cooperative agreement. The complainant charged the facility's administration

with nepotism, diversion of funds to nonresearch use, manipulation of accounts, and failure to return income from sponsored project activities. The audit disclosed that ARS had already advised the facility to remove the appearance of nepotism. In addition, an amendment to the cooperative agreement prohibiting nepotism has been signed. We recommended that the facility reimburse ARS for the diverted funds and the income from sponsored project activities. ARS officials agreed to take corrective action.

## INVESTIGATIONS ACCOMPLISHMENTS

### FARMERS HOME ADMINISTRATION (FmHA)

In FY 1993, OIG issued 186 reports of investigation concerning FmHA programs and operations. Monetary results for FmHA exceeded $8.6 million and included over $3.1 million in recoveries/collections, $3.2 million in restitutions and fines in excess of $1.2 million. Examples of these cases are set forth below:

A Rural Rental Housing (RRH) developer was convicted on charges of extortion and making false statements about construction costs which were not eligible for FmHA financing. By holding back payments to the contractor for construction of an RRH project, the developer, who was also an attorney, got the contractor to build a pond, valued at $25,000 on his personal property. The developer was sentenced to 5 months in prison and 5 months in a community confinement facility. He was also given 19 months' probation, fined $25,000, ordered to pay $18,750 to cover his costs of imprisonment, and disbarred as an attorney. This investigation was a joint effort with the Federal Bureau of Investigation (FBI).

Three persons including an RRH building contractor, a business associate, and the associate's wife were convicted of conspiracy and fraud for falsifying costs in the construction of an RRH project. The business associate who had previously been convicted of RRH fraud and was under an order of debarment during the period of construction, conspired to inflate the costs of building a road adjacent to the project. To conceal the debarred person's involvement in the project the conspirators formed a dummy corporation to receive the funds for the road construction and pass them through to the debarred party. The contractor was sentenced to I year in prison, fined $30,000, and ordered to pay $12,000 in restitution; the business associate was sentenced to 5 years in prison, fined $10,000 and ordered to pay restitution as directed by FmHA; his wife was sentenced to I year in prison.

### AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE (ASCS)

In FY 1993, OIG issued 109 reports of investigation for ASCS with monetary results totaling more than $5.7 million. Included in this amount were recoveries/collections of over $1.5 million, restitutions exceeding $2.8 million, costs avoided in excess of $930,000, and administrative penalties of $208,000. The following are some examples of these cases:

A tobacco warehouseman began serving a 7-year prison term for making false statements to ASCS between 1983 and 1987 pertaining to the sale of flue-cured and burley tobacco. The warehouseman fraudulently obtained tobacco marketing cards with unused tobacco quotas on them and used them to sell stolen tobacco. The warehouseman had been indicted in Tennessee, North Carolina, Georgia, and Virginia on 53 counts of making false statements and money laundering. He had pled guilty to 38 counts of the indictments. As a result of the investigation, ASCS assessed marketing penalties amounting to approximately $12.3 million against the warehouseman.

A farming corporation pled guilty to defrauding ASCS and the U.S. Department of the Interior by creating false farming entities to avoid ASCS program

payment limitations and to obtain federally subsidized irrigation water from the Bureau of Reclamation. The president of the corporation admitted that a reconstitution of his farming operation, with his father and brother identified as the principals, was done only to maximize ASCS payments in the Wheat and Feed Grain Program above $50,000 legal limits and to pay significantly subsidized rates for Federal water on farmland which exceeded the 960-acre limit. The corporation and its president agreed to pay $500,000 in restitution to USDA and Interior. This investigation was conducted jointly with OIG-Interior.

FOOD AND NUTRITION SERVICE (FNS)

In FY 1993, OIG issued 818 reports of investigation relating to FNS programs, including 783 relating to the Food Stamp Program. Overall monetary results exceeded $19.7 million, which included almost $6.5 million in restitutions, over $1.8 million in recoveries/collections, fines in excess of $10.6 million, and over $290,000 in administrative penalties. Examples of these cases are set forth below:

Food Stamp Program (FSP)

The U.S. attorney in Brooklyn, New York, filed a $120 million lawsuit against a wholesaler claiming that the wholesaler fraudulently redeemed more than $40 million worth of food stamps in a 2-year period. In the 1970's the wholesaler obtained FNS authorization for his company to participate in the FSP. However, in 1982, authorization for most wholesale firms, including this firm, was withdrawn in an effort to reduce food stamp fraud. In 1990, the wholesaler opened a small retail operation within his wholesale operation to provide a laundering outlet for retail store owners who had obtained food stamps illegally. Many of the wholesaler's customers were not authorized to accept food stamps; several of them were under separate OIG investigation for food stamp trafficking. The wholesaler redeemed over $40 million in food stamps through the authorized retail operation. The wholesaler pled guilty to criminal charges in this case and was sentenced to 21 months in prison and fined $40,000. Settlement of the civil suit is pending.

A street trafficker was sentenced to 15 months in prison and was ordered to make restitution of $112,000 after pleading guilty to illegal possession of over $100,000 in food stamps. We received information that the defendant was purchasing stamps from recipients as they left food stamp issuance centers. An undercover OIG agent contacted him and agreed to buy $30,000 in foods stamps. After the transaction was completed, the defendant was arrested. A search of his residence and vehicles uncovered an additional $82,000 in food stamps.

Other Nutrition Programs

As a result of our continuing investigations into bid rigging in the National School Lunch Program (NSLP), three companies and one official pled guilty to violating the Sherman Antitrust Act and were fined $8.4 million. Two officials of two firms were also indicted; their trials are pending. The investigations conducted with the Antitrust Division of the Department of Justice showed the companies conspired to submit noncompetitive bids for food and milk contracts with school districts and other public concerns in Oklahoma and Texas. The NSLP provides a substantial portion of the funding to public schools for meals and milk.

FEDERAL CROP INSURANCE CORPORATION (FCIC)

In FY 1993, OIG issued 35 reports of investigation for FCIC with monetary results in excess of $1.8 million. Included in this amount were over $660,000 in restitutions, and almost $1.2 million in collections/recoveries. The following are some examples of one of these cases:

As a result of a joint OIG and FCIC investigation, 23 farmers have pled guilty in Federal court to charges of mail fraud in connection with over $2.4 million in fraudulent crop insurance claims. The claims were filed from 1987 to 1990 and reported nonexistent crop losses on soybeans, rice, and wheat. The farmers, most acting independently, concealed their true production by selling it under fictitious names. Seven of the defendants had been sentenced earlier. Another 10 defendants received sentences of 3 years' supervised probation. One was fined $10,000; the other nine were ordered to pay $296,500 in restitution. Sentencing for the remaining six is pending. These individuals collectively submitted false crop insurance claims of more than $963,000. Charges against more farmers are expected.

A family-owned grapegrowing partnership agreed to pay the Government $1 million plus interest in settlement of a civil lawsuit. Our investigation, which was conducted jointly with the Internal Revenue Service (IRS) disclosed that the partnership claimed crop losses in 1982 and 1983 which in fact did not occur and as a result illegally received over $1 million in crop indemnity payments from FCIC. The partnership and one of its partners were subsequently indicted on criminal charges of defrauding FCIC. In a separate indictment all three brothers were charged with income tax fraud. In addition the three brothers as individuals and the partnership were charged in a civil lawsuit with violating the False Claims Act by participating in a scheme to defraud FCIC. The criminal charges relating to the FCIC fraud were subsequently dismissed by the Government in lieu of the civil lawsuit. However, all three brothers were given prison sentences after they were convicted of tax evasion for tax years 1981 through 1983.

FOREIGN AGRICULTURAL SERVICE (FAS)

In FY 1993, OIG issued 13 reports of investigation for FAS with monetary results of almost $6.6 million. Included in this amount were over $1.6 million in restitutions, $2.8 million in recoveries/collections, and over $1 million each in fines and cost avoidance. An example of one of these cases is set forth below:

A trading company has pled guilty to 20 counts of an indictment that included charges the company schemed to defraud CCC and FAS. According to the indictment the company schemed with the Atlanta branch of the Banca Nazionale del Lavaro (BNL) and others to inflate loans under the export credit program. The loans guaranteed by CCC were made to an Iraqi government organization that contracted for grain sold under the credit program. The trading company inflated some loans by including in them the bribes paid to bank employees and "after-sale services" payments demanded by the Iraqis. The trading company paid a $1 million fine and consented to be permanently debarred from all programs funded, guaranteed, or sponsored by the Government. This investigation is part of the ongoing BNL/Iraq investigation being conducted by OIG, the Federal Reserve Bank, the U.S. Customs Service, the IRS, and the FBI under the direction of the U.S. Department of Justice.

# OFFICE OF THE INSPECTOR GENERAL

## Passenger Motor Vehicles

The Fiscal Year 1995 Budget Estimate does not include the purchase of additional passenger vehicles.

The Office of Inspector General (OIG) owns 19 vehicles (14 vans, 3 pickup trucks, and 2 sedans). This figure includes two sedans and a pickup truck which were seized and forfeited to the Government as the result of OIG investigations. The agency utilizes these vehicles for law enforcement activities during undercover operations to obtain evidence for prosecutions. OIG has installed specialized law enforcement equipment such as radios, cameras, and video equipment in these surveillance vehicles. Examples of these investigations include the controlled exchange of USDA Food Coupons for cash or contraband and observing and photographing meat plant slaughtering and selling dead or adulterated livestock to the public. OIG must have such operational capabilities and equipment to fulfill the statutory criminal investigative responsibilities specified in the Inspector General Act of 1978 and other related Congressional Acts.

Age and mileage data for passenger carrying vehicles on hand as of September 30, 1993, are listed below. No requests for additional vehicles are anticipated. These figures do not include vehicles leased from GSA or commercially leased under GSA approved contracts.

| | Age Data | | Mileage Data | | |
|---|---|---|---|---|---|
| Age-Year of Model | Number of Vehicles | % of Total | Lifetime Mileage (thousands) | Number of Vehicles | % of Total |
| 1990 | 1 | 50 | 40-60 | 1 | 50 |
| 1987 | 1 | 50 | 20-40 | 1 | 50 |
| | 2 | 100 | | 2 | 100 |

# OFFICE OF THE GENERAL COUNSEL

## Purpose Statement

The Office of the General Counsel, which, prior to 1955, was known as the Office of the Solicitor, was established in 1910 (70 Stat. 742) as the law office of the Department of Agriculture.

The Office provides all essential and necessary legal advice and services for the Department's ongoing programs. The headquarters legal staff is divided into four sections: (1) Regulatory and Marketing; (2) International Affairs, Commodity Programs and Food Assistance Programs; (3) Community Development and Natural Resources; and (4) Legislation, Litigation, Research and Operations.

Geographic Location. The work of this office is carried out in Washington, D.C., and five regions which include 22 offices as follows:

Southern Region:
- Atlanta, Georgia
- Hato Rey, Puerto Rico
- Jackson, Mississippi
- Montgomery, Alabama
- Raleigh, North Carolina

Central Region:
- Leawood, Kansas
- Lincoln, Nebraska
- Little Rock, Arkansas
- Stillwater, Oklahoma
- Temple, Texas

Mountain Region:
- Denver, Colorado
- Albuquerque, New Mexico
- Missoula, Montana
- Ogden, Utah

Pacific Region:
- San Francisco, California
- Juneau, Alaska
- Portland, Oregon

Northern Region:
- Harrisburg, Pennsylvania
- Chicago, Illinois
- Columbus, Ohio
- Milwaukee, Wisconsin
- Richmond, Virginia

As of September 30, 1993, the office had 398 employees of which 360 were permanent full-time employees and 38 were other employees. There were 165 permanent full-time employees and 14 other employees located in Washington, D.C., and 195 permanent full-time employees and 24 other employees in the field.

OFFICE OF THE GENERAL COUNSEL

Available Funds and Staff-Years

1993 Actual and Estimated 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Salaries and Expenses | $24,554,000 | 354 | $25,992,000 | 375 | $26,173,000 | 370 |
| Allocation from: | | | | | | |
| Hazardous Waste Management | 513,000 | 7 | 576,000 | 7 | 945,000 | 12 |
| Obligations under other USDA appropriations: | | | | | | |
| AMS | 68,015 | 1 | -- | -- | -- | -- |
| FmHA | 689,232 | 11 | -- | -- | -- | -- |
| FS | 997,253 | 14 | 1,381,000 | 19 | 1,229,000 | 19 |
| AMS-User Fees | 711,000 | 8 | 619,000 | 7 | 597,000 | 6 |
| APHIS-User Fees | 207,000 | 4 | 247,000 | 3 | 226,000 | 3 |
| FGIS-User Fees | 166,000 | 3 | 45,000 | .5 | 44,000 | .5 |
| ASCS-User Fees | 23,000 | 1 | 38,000 | .5 | 40,000 | .5 |
| FSIS-User Fees | | | 36,000 | .5 | 53,000 | .6 |
| Total, Other USDA Appropriations | 2,861,500 | 42 | 2,366,000 | 31 | 2,189,000 | 30 |
| Total, Office of the General Counsel | 27,928,500 | 403 | 28,934,000 | 413 | 29,307,000 | 412 |

OFFICE OF THE GENERAL COUNSEL
Permanent Positions by Grade and Staff-Year Summary
1993 and Estimated 1994 and 1995

| Grade | 1993 Hdqrs | 1993 Field | 1993 Total | 1994 Hdqrs | 1994 Field | 1994 Total | 1995 Hdqrs | 1995 Field | 1995 Total |
|---|---|---|---|---|---|---|---|---|---|
| Executive Level IV | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| ES-6 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| ES-5 | 3 | -- | 3 | 4 | -- | 4 | 5 | -- | 5 |
| ES-4 | 7 | 1 | 8 | 6 | 1 | 7 | 5 | 1 | 6 |
| ES-3 | 3 | 1 | 4 | 3 | 1 | 4 | 3 | 4 | 7 |
| ES-2 | -- | 3 | 3 | -- | 3 | 3 | -- | -- | -- |
| GS/GM-15 | 38 | 18 | 56 | 38 | 18 | 56 | 34 | 16 | 50 |
| GS/GM-14 | 53 | 92 | 145 | 67 | 93 | 160 | 83 | 102 | 185 |
| GS/GM-13 | 30 | 10 | 40 | 21 | 16 | 37 | 10 | 5 | 15 |
| GS-12 | 11 | 15 | 26 | 8 | 3 | 11 | 3 | 2 | 5 |
| GS-11 | 8 | 4 | 12 | 2 | 1 | 3 | 2 | 2 | 4 |
| GS-10 | 1 | -- | 1 | 2 | -- | 2 | 2 | -- | 2 |
| GS- 9 | 7 | 14 | 21 | 5 | 16 | 21 | 6 | 16 | 22 |
| GS- 8 | 10 | 10 | 20 | 10 | 10 | 20 | 10 | 10 | 20 |
| GS- 7 | 9 | 17 | 26 | 10 | 20 | 30 | 13 | 23 | 36 |
| GS- 6 | 9 | 17 | 26 | 10 | 20 | 30 | 10 | 20 | 30 |
| GS- 5 | 5 | 16 | 21 | 2 | 16 | 18 | 2 | 16 | 18 |
| GS- 4 | 2 | 4 | 6 | 1 | 4 | 5 | 1 | 4 | 5 |
| Total Permanent Positions | 198 | 222 | 420 | 191 | 222 | 413 | 191 | 221 | 412 |
| Unfilled Positions, end-of-year | -8 | -11 | -19 | -- | -- | -- | -- | -- | -- |
| Total Permanent Employment, end-of-year | 190 | 211 | 401 | 191 | 222 | 413 | 191 | 221 | 412 |
| Staff-Years Ceiling | 187 | 216 | 403 | 191 | 222 | 413 | 191 | 221 | 412 |

OFFICE OF THE GENERAL COUNSEL

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | | 1993 | 1994 | 1995 |
|---|---|---|---|---|
| Personnel Compensation: | | | | |
| | Headquarters | $ 9,186,623 | $ 9,830,070 | $ 9,890,794 |
| | Field | 9,366,303 | 10,335,610 | 10,414,934 |
| 11 | Total personnel compensation | 18,552,926 | 20,165,680 | 20,305,728 |
| 12 | Personnel benefits | 3,483,170 | 3,886,691 | 3,939,642 |
| 13 | Benefits for former personnel | 5,169 | 8,008 | 8,008 |
| | Total pers. comp. & benefits | 22,041,265 | 24,060,379 | 24,253,378 |
| Other Objects: | | | | |
| 21 | Travel | 187,146 | 282,300 | 283,730 |
| 22 | Transportation of things | 13,156 | 25,000 | 22,260 |
| 23.2 | Rental payments to others | -- | -- | -- |
| 23.3 | Communications, utilities and misc. charges | 758,925 | 657,971 | 666,520 |
| 24 | Printing and reproduction | 29,099 | 24,703 | 24,965 |
| 25.1 | Consulting services | -- | -- | -- |
| 25.2 | Other services | 488,520 | 521,736 | 507,320 |
| 26 | Supplies and materials | 516,029 | 383,011 | 376,757 |
| 31 | Equipment | 483,769 | 36,900 | 38,070 |
| | Total Other Objects | 2,476,644 | 1,931,621 | 1,919,622 |
| Total direct obligations | | 24,517,909 | 25,992,000 | 26,173,000 |
| Position Data: | | | | |
| Average Salary, ES positions | | $106,230 | $110,583 | $113,411 |
| Average Salary, GM/GS positions | | $49,518 | $53,143 | $54,578 |
| Average Grade, GM/GS positions | | 11.47 | 11.69 | 11.75 |

## OFFICE OF THE GENERAL COUNSEL

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Office of the General Counsel:

For necessary expenses of the Office of the General Counsel, [$25,992,000]. $26,173,000

## SALARIES AND EXPENSES

| | |
|---|---|
| Appropriations Act, 1994 | $25,992,000 |
| Budget Request, 1995 | 26,173,000 |
| Increase in Appropriation | + 181,000 |

### SUMMARY OF INCREASES AND DECREASES
(On basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Program Changes | 1995 Estimated |
|---|---|---|---|---|
| Legal Services.. | $25,992,000 | +$240,000 | -$59,000 | $26,173,000 |

### PROJECT STATEMENT
(On basis of appropriation)

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Legal Services | $24,517,909 | 354 | $25,992,000 | 375 | +181,000 | $26,173,000 | 370 |
| Unobligated balance | 36,091 | | | | | | |
| Total, Appropriation | $24,554,000 | 354 | $25,992,000 | 375 | +181,000 (1) | $26,173,000 | 370 |

### EXPLANATION OF PROGRAM

The General Counsel is the chief law officer of the Department and is responsible for providing legal services for all programs, operations, and activities of the Department. The General Counsel is assisted by a Deputy General Counsel and four Associate General Counsels, each of whom is responsible for a portion of the legal work of the Department. The functions of this Office are performed in the Washington office and five regions which include five regional and 17 branch offices. The Law Library was transferred from the National Agricultural Library to OGC in 1982. The field offices handle legal work relating primarily to the activities of the Agricultural Stabilization and Conservation Service, Agricultural Marketing Service, Commodity Credit Corporation, Farmers Home Administration, Federal Crop Insurance Corporation, Forest Service, Rural Development Administration, Soil Conservation Service, and the Food and Nutrition Service. By delegation of the General Counsel, legal work relating to other programs and activities of the Department may be handled by a field office.

Legal Advice. The Office of the General Counsel issues both formal and informal opinions on legal questions arising in the administration of the Department's programs; prepares or reviews administrative rules and regulations applicable to the public; drafts proposed legislation; prepares or interprets contracts, mortgages, leases, deeds, and similar documents; prepares patent applications arising out of inventions by Department employees; and considers and determines claims by and against the United States arising out of the Department's activities.

Administrative Proceedings. The Department is represented by the General Counsel in administrative proceedings for the promulgation of rules having the force and effect of law and in quasi-judicial hearings held in connection with the administration of various USDA programs.

Civil Litigation. Civil litigation arising out of the Department's work is handled by the Department of Justice, with attorneys of the Office of the General Counsel

assisting in the preparation and trial of such cases. The General Counsel represents the Secretary in administrative proceedings before the Interstate Commerce Commission involving freight rates on farm commodities and in appeals from the decisions of the Commission to the courts. By delegation, the Associate General Counsel for Legislation, Litigation, Research and Operations represents the Department in certain classes of cases before the United States Courts of Appeals.

Criminal Litigation. Criminal cases are reviewed for the purpose of referring them to the Department of Justice.

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A net increase of $181,000 for the Office of the General Counsel consisting of:

(a) An increase of $49,000 for increased operating costs.

Need for Change. OGC is continually facing inflationary costs. Continued absorption of these increased operating costs will severely affect the operations of the office.

Nature of Change. This increase will cover the costs associated with inflation which has affected the critical parts of the base program. Examples of increased costs are travel, printing, supplies and communication services.

(b) A decrease of $61,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $61,000.

Nature of Change. In order to achieve these savings, OGC will reduce discretionary expenses by $61,000 in FY 1995 in areas such as office supply expenditures, and printing and reproduction services. OGC will also closely monitor contractual services, utility and communication charges and reduce travel.

(c) A decrease of $47,000 for a reduction in Federal employment costs.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, OGC is reducing employment costs.

Nature of Change. To achieve the reduction, OGC will streamline its operations. The total reduction in personnel costs amounts to $47,000. OGC plans to conduct a review of our ability to provide quality legal services to the Department as a result of the Secretary's reorganization. Since the provision of legal services, especially in the field, is in most cases linked to the location of client offices, OGC's streamlining decisions must, in large part, await development of the reorganized structure of the Department. Some of those decisions may include transferring functions and personnel among existing offices, eliminating field and Washington office positions and increasing the efficiency of personnel by enhancement or reassignment of support activities.

(d) An increase of $240,000 for pay increases.

Office of the General Counsel
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Staff | | Staff | | Staff | |
| | Amount | Years | Amount | Years | Amount | Years |
| Alabama | $ 296,373 | 6 | $ 305,385 | 6 | $ 308,824 | 6 |
| Alaska | 252,266 | 4 | 166,509 | 3 | 257,868 | 4 |
| Arkansas | 715,708 | 12 | 739,164 | 12 | 746,421 | 12 |
| California | 1,301,659 | 20 | 1,381,420 | 22 | 1,396,980 | 22 |
| Colorado | 926,394 | 13 | 1,108,876 | 17 | 1,119,932 | 17 |
| District of Columbia | 12,829,448 | 155 | 13,209,075 | 163 | 13,261,406 | 158 |
| Georgia | 1,327,750 | 24 | 1,458,556 | 25 | 1,473,815 | 25 |
| Illinois | 542,170 | 9 | 767,770 | 12 | 775,219 | 12 |
| Kansas | 841,534 | 14 | 863,327 | 14 | 872,410 | 14 |
| Mississippi | 179,360 | 4 | 243,687 | 5 | 246,178 | 5 |
| Montana | 483,743 | 9 | 552,038 | 9 | 556,944 | 9 |
| Nebraska | 210,325 | 4 | 216,137 | 4 | 218,500 | 4 |
| New Mexico | 324,526 | 6 | 334,015 | 6 | 336,314 | 6 |
| North Carolina | 211,735 | 4 | 216,846 | 4 | 219,276 | 4 |
| Ohio | 224,523 | 4 | 230,626 | 4 | 233,141 | 4 |
| Oklahoma | 261,885 | 4 | 271,182 | 4 | 272,453 | 4 |
| Oregon | 834,538 | 13 | 961,727 | 14 | 882,473 | 13 |
| Pennsylvania | 747,922 | 12 | 844,462 | 13 | 853,064 | 13 |
| Puerto Rico | 208,633 | 4 | 216,483 | 4 | 218,608 | 4 |
| Texas | 619,600 | 12 | 634,971 | 12 | 640,671 | 12 |
| Utah | 340,930 | 6 | 351,518 | 6 | 354,735 | 6 |
| Virginia | 225,859 | 4 | 290,825 | 5 | 294,056 | 5 |
| Wisconsin | 611,028 | 11 | 627,401 | 11 | 633,712 | 11 |
| Subtotal, Available or Estimate | 24,517,909 | 354 | 25,992,000 | 375 | 26,173,000 | 370 |
| Unobligated balance | 36,091 | -- | -- | -- | -- | -- |
| Total, Available or Estimate | 24,554,000 | 354 | 25,992,000 | 375 | 26,173,000 | 370 |

# OFFICE OF THE GENERAL COUNSEL

## STATUS OF PROGRAM

The Office of the General Counsel (OGC) serves as the legal advisor and counsel for the Secretary and the program agencies of the Department.

Current Activities: The Office provides legal services for all agencies of the Department. These services include, but are not limited to the following:

- -- rendering opinions on legal questions;
- -- preparing or reviewing rules and regulations;
- -- preparing or interpreting contracts, mortgages, leases, deeds, and other documents;
- -- preparing briefs and representing the Department in judicial proceedings and litigation;
- -- representing departmental agencies in nonlitigation debt collection programs;
- -- processing applications for patents for inventions by the Department's employees;
- -- representing departmental agencies in state water rights adjudications;
- -- considering and determining claims by and against the United States arising out of the Department's activities;
- -- representing the Department in formal administrative proceedings;
- -- assisting the Department of Justice (DOJ) in the preparation and trial of cases involving the Department; and
- -- representing the Secretary of Agriculture and the Commodity Credit Corporation before the Interstate Commerce Commission, the Federal Maritime Commission, and the International Trade Commission.

Highlights of OGC's Fiscal Year (FY) 1993 operations are described below:

Selected Examples of Recent Progress:

### ADMINISTRATION AND RESOURCE MANAGEMENT

The Office of the General Counsel (OGC) has implemented its much needed ADP replacement program in which we replaced antiquated 286-based computer technology with 486-based computers. In addition, we purchased the system software to facilitate extending our current Electronic Mail capability agency wide.

REGULATORY AND MARKETING

Meat and Poultry Inspection Acts: Approximately 172 criminal cases, civil injunction cases, civil seizure cases and claims collection cases were referred to DOJ or otherwise handled or disposed of with numerous successful criminal prosecutions. One of the most significant of those cases involved an OIG investigation of clandestine slaughtering activities at Coast Sausage Packing Company, a meat packing establishment in Oakland, California. The investigation resulted in a raid and retention of adulterated and uninspected products. OGC has greatly assisted the DOJ with respect to the criminal prosecution and civil seizure and condemnation actions resulting from that investigation. In addition, 23 administrative proceedings involving the withdrawal, suspension, or denial of Federal meat and poultry products inspection were litigated. One of the most significant of those cases concerned an action to withdraw inspection services from Hubert H. Smith Packing Company, a meat packing establishment in Muskegon, Michigan. The action was based on the Federal conviction of Louis V. Smith, a corporate owner and officer, for distributing adulterated and misbranded meat products. Following an oral hearing, the Administrative Law Judge issued a decision withdrawing inspection unless Louis V. Smith was operationally and financially divested from the firm. The Judicial Officer sustained the Administrative Law Judge's decision on appeal.

OGC also assisted in defending the Secretary and other officials of the Department in 10 civil court actions. One of the most significant of those cases involves a lawsuit in the United States District Court for the Western District of Texas filed by the Texas Food Industry Association, the National-American Wholesale Grocers' Association, the International Foodservice Distributors Association, and the National Grocers Association against USDA. The plaintiffs challenged USDA's issuance of an interim rule and a final rule which required that all raw and partially cooked meat and poultry products bear safe handling labeling in order to protect consumers from food poisoning. Plaintiffs alleged that the interim rule and the final rule, which made significant changes in the regulations as the result of public comments, violated the Administrative Procedure Act because USDA failed to establish good cause to circumvent the prior notice and comment requirements, and that the effective date of the rule was arbitrary and capricious. The court found that there was no emergency justifying the interim rule, and granted plaintiffs' motion for a preliminary injunction; the Court of Appeals declined to stay the preliminary injunction pending appeal. Because of the delay inherent in further litigation, USDA has published new proposed regulations providing for a 45-day public comment period. Another significant case involved a lawsuit in the United States District Court for the District of Columbia filed by Bob Evans Farms and two other meat packers against USDA. The plaintiffs sought an order requiring USDA to finalize a 1988 proposed rule to amend the regulations to allow products containing mechanically separated (species) to be labeled in the ingredient statement as meat (e.g., beef or pork) in certain circumstances. As alternative relief, the plaintiffs wanted poultry products containing mechanically deboned poultry to bear the label designation "mechanically separated" for that

ingredient. The court dismissed the case last spring after USDA withdrew the proposed rule pertaining to the meat regulations, and issued an advance notice of proposed rulemaking pertaining to the labeling of mechanically deboned poultry. The plaintiffs subsequently reopened the case, but the Court ordered the reopened case dismissed, and requested that USDA make a decision on this issue by the end of next February.

OGC rendered 1090 oral opinions and handled 759 pieces of correspondence. OGC also reviewed, revised, drafted, and cleared approximately 74 notices of proposed rulemaking or final rulemaking dockets, and drafted or reviewed 56 bills and reports concerning amendments to the Acts. In this regard, OGC provided substantial legal services in connection with the development and implementation of a USDA pathogen reduction program to reduce the likelihood of future outbreaks of foodborne illness caused by E.coli and other pathogens in meat and poultry. Additionally, several proposed and final rulemaking dockets involving nutrition labeling of meat and poultry products, including those concerning nutrition labeling health claims, placement of nutrition labeling information on packaged products and various technical amendments, were reviewed and cleared. OGC also provided substantial legal services with respect to food safety legislation concerning pesticides and pesticide residues in food, the implementation of NAFTA with respect to meat and poultry products, proposed regulations concerning mandatory HACCP programs, and proposed regulations concerning the prior labeling approval system.

Agricultural Marketing Act of 1946: OGC handled four criminal and civil court cases. Additionally, OGC reviewed and cleared 10 notices of proposed rulemaking or final rulemaking dockets, rendered 20 oral opinions and handled 16 pieces of correspondence.

Animal and Plant Quarantine and related laws and Animal Damage Control: OGC reviewed for legal sufficiency, drafted or redrafted and cleared about 276 notices of proposed rulemaking or final rulemaking dockets, and legal notices for publication in the Federal Register. OGC provided substantial legal assistance regarding such dockets, including genetically engineered plants; importation of potatoes from Canada; APHIS user fees; importation of cattle from Canada; Salmonella enteritidis in poultry and eggs; importation of animal semen; importation of logs and other wood products; importation of plants in growing media; importation of ratites and ratite hatching eggs; post entry quarantine for plants; importation of various fruits and vegetables from certain countries; NEPA procedures; procedures for importation of animals through the Harry S Truman Animal Import Center; importation of cattle from Mexico; use of direct final rules; and importation of fetal bovine serum.

Approximately 138 criminal cases, civil cases and claims collection cases were referred to the DOJ or otherwise handled or disposed. OGC also provided substantial assistance in handling about 20 civil court actions which included defending the Secretary and other officials of the Department. One of the

cases involved a suit by Rose Acre Farms, Inc., in the U.S. Court of Claims for about $17.5 million for alleged unconstitutional taking of property without compensation arising out of certain restrictions on the sale of eggs and the destruction of chickens by APHIS under its Salmonella enteritidis regulations. An answer denying the claim has been filed, and the parties are engaged in discovery. Extensive legal services were also provided by OGC with regard to numerous claims and bankruptcy cases involving the collection of APHIS user fees. Many hundreds of pages of plans and other documents were reviewed and claims and responses in many of the cases were prepared and filed. In several bankruptcy cases involving airlines, innovative theories and positions were advanced resulting in the collection of over $3.1 million from the airlines.

OGC attorneys also handled approximately 488 administrative cases under the animal and plant quarantine and related laws during the fiscal year. Most of these cases sought the assessment of civil penalties, and OGC obtained approximately 181 decisions in civil penalty cases, assessing about $195,000. OGC reviewed over 550 pieces of correspondence and other documents, and rendered approximately 1970 oral legal opinions. Further, OGC reviewed and/or drafted or redrafted and cleared 35 pieces of legislation and legislative reports.

Marketing Agreements and Orders: OGC attorneys devoted substantial legal resources to the milk and fruit and vegetable marketing order programs. There are more than 80 fruit and vegetable orders in effect. OGC attorneys reviewed and approved almost 250 rulemaking dockets, as well as many other documents relating to these orders. OGC also provided daily legal advice to client agencies in connection with a wide variety of matters arising under both the fruit and vegetable, and milk marketing order programs. OGC participates in all formal rulemaking proceedings as Department counsel. Several significant formal rulemaking hearings were conducted during the fiscal year concerning milk marketing orders. OGC attorneys represented the Department at these hearings and provided guidance in the evaluation of the recording and preparation of Departmental decisions. The issues involved in these milk hearings included implementing multiple component pricing in several orders, alternative methods of exempting producer-handlers, and the establishment of a Class III-A pricing formula in most marketing orders.

Substantial legal resources were also devoted to civil and administrative actions arising under the marketing order programs. These actions included civil forfeitures, injunctive actions, bankruptcy matters, and challenges to the legality of a variety of marketing order provisions. Important federal court decisions in the past year upheld the Secretary's discretion in setting the scope of rulemaking proceedings and his authority to terminate milk marketing orders.

Research and Promotion Programs: OGC provided substantial legal services to research and promotion programs administered by USDA under free-standing legislation. These include the programs for dairy products, fluid milk, cotton, eggs, potatoes, honey, watermelons, beef, pork, soybeans, mushrooms, limes, pecans,

wool and mohair. During the fiscal year OGC assisted in the preparation and issuance of a final order for mushrooms, a proposed order for fluid milk and implementing regulations for most of the orders. In the litigation arena, OGC, working with the Department of Justice, successfully defended against an injunctive action brought to prohibit cooperatives from voting in the producer referendum for the continuation of the dairy promotion order.

Animal Welfare and Horse Protection Acts: OGC expended substantial resources in connection with the Animal Welfare and Horse Protection Act Programs. OGC attorneys serve as complainant's counsel in administrative enforcement actions brought under these two statutes, and in FY 1993, OGC initiated 57 enforcement cases. OGC represented APHIS as trial counsel in 16 oral hearings conducted before the Department's administrative law judges and resolved over 80 administrative cases through trials on the merits, by negotiating consent decisions with the alleged violators or by other means.

Virus-Serum-Toxin Act: OGC reviewed and provided drafting assistance to APHIS in a number of rulemaking dockets concerning veterinary biologics during FY 1993. The dockets reviewed and approved by OGC included regulations implementing new testing and approval procedures for biologics, regulations governing blood and blood products, and rules specifying requirements applicable to the repackaging and labeling of individual dose biologics. In addition, substantial legal resources were devoted to litigation under the Virus-Serum-Toxin Act. OGC assisted Department of Justice lawyers in an appeal action concerning USDA's interpretation of the term "ship" under the Act. In that case, the federal district court upheld the Department's interpretation of the term "ship". The Eighth Circuit Court of Appeals recently affirmed the district court's decision.

Grain Standards Act: OGC provided legal services to FGIS in connection with the agency's administration and enforcement of the United States Grain Standards Act. OGC reviewed a variety of rulemaking and other documents for publication in the Federal Register including a rule revising the regulations concerning the certification of additive-treated grain and a proposed rule prohibiting the application of water to grain. OGC also provided substantial drafting and review services for FGIS's reauthorization legislation.

Perishable Agricultural Commodities Act: During FY 1993, 388 PACA reparation cases were referred to OGC for decision, and OGC staff rendered 389 opinions concerning contract disputes between members of the perishable agricultural commodities industry. In addition, OGC received 69 new administrative enforcement cases, 11 civil cases and 14 "responsibly connected" referrals. Fifty-six administrative enforcement cases and 10 court cases were initiated during the fiscal year.

Packers and Stockyards Act: During FY 1993, OGC was involved in 82 administrative enforcements, the initiation of 32 court actions and the decision of 13 reparation cases. The office was also involved in 14 statutory trust matters. Pursuant to section 1324 of the Food Security Act of 1985, 6 applications regarding

state central filing systems were received. OGC collected $243,000 in civil penalties in connection with its administrative enforcement actions. Ninety-one requests for administrative enforcement actions, 22 requests for civil court actions, 8 requests for criminal action, and 20 reparation cases were received during the fiscal year.

## INTERNATIONAL AFFAIRS, COMMODITY PROGRAMS, AND FOOD ASSISTANCE PROGRAMS

Commodity Credit Corporation (CCC) and Agricultural Stabilization and Conservation Service (ASCS): OGC provided a significant amount of assistance in drafting the Administration's 1993 budget reconciliation proposals. Subsequent to approval of the Omnibus Budget Reconciliation Act of 1993, OGC reviewed and assisted in the drafting of regulations used to administer ASCS and CCC programs affected by these amendments. OGC continued to provide legal advice in connection with the administration of commodity price support and production adjustment programs authorized by the Agricultural Adjustment Act of 1938, the CCC Charter Act, and the Agricultural Act of 1949. Increased utilization of OGC resources was also required because of hazardous waste clean-up activities at former CCC grain storage sites. Because of the midwest floods and other disasters, a significant amount of legal assistance was also provided to Department officials in connection with the implementation of disaster assistance programs. Legal services were also required in connection with various conservation programs. In addition, substantial resources were devoted to litigation involving these programs as well as statutory payment limitation provisions.

CCC litigation, while decreasing in quantity due to the downturn in bankruptcy and credit collection cases, has substantially increased in complexity. Plaintiffs' attorneys have learned to avoid the jurisdiction of the United States Court of Federal Claims by requesting judicial review under the Administrative Procedure Act. Since the plaintiffs in these cases do not demand a dollar amount, the total dollar value of litigation is reduced. However, this litigation requires extensive legal briefings and substantially more involvement by OGC than an ordinary debt collection case. Complicated litigation presently pending includes actions filed challenging the Secretary's imposition of sugar marketing allotments. OGC attorneys, furthermore, continue with the complex commercial litigation involving an action to collect under CCC export credit guarantees held by the Banca Nazionale del Lavoro.

Federal Crop Insurance Corporation (FCIC): A significant amount of time has been spent with the Secretary's task force on improving the Federal crop insurance program. Legislation has been drafted and program parameters have been proposed to the Secretary involving a complete overhaul of the Corporation. OGC continues to review program regulations and contractual provisions to simplify and strengthen all aspects of the program ranging from producer participation to reinsurance and agency contractual relationships. Substantial resources have been required in an attempt to keep the program uniform across state lines. Implementation of the new actual production history and

the area yield plan concepts as required by the Food, Agriculture, Conservation, and Trade Act of 1990 requires substantial legal resources.

Foreign Agricultural Service (FAS): The demand for legal services provided by OGC in connection with international trade has increased dramatically. OGC attorneys have been directly and extensively involved in the Uruguay Round of multilateral trade negotiations conducted under the auspices of the General Agreement on Tariffs and Trade (GATT). These efforts have involved exhaustive work in the areas of market access, disciplines on domestic and export subsidies, sanitary and phytosanitary measures, the development of a new multilateral trade organization, new rules for the resolution of international trade disputes, and virtually every other facet of trade involving agriculture.

Similarly, OGC attorneys have played an integral role in the enactment of the North American Free Trade Agreement (NAFTA) Implementation Act. This work has involved drafting implementing legislation, drafting provisions of the statement of administrative action, consultations with numerous congressional staff members, coordination and consultation with other affected and interested government agencies, and identification and facilitation of other actions necessary to implement NAFTA.

In addition, the Department in the past year has much more actively considered the possibility of the imposition of import restrictions under section 22 of the Agricultural Adjustment Act with respect to certain commodities. The time-consuming task force efforts in each case have included active participation of OGC attorneys.

OGC attorneys also played a lead role in the re-scheduling of the debt of the former Soviet Union, a particularly important development for the export credit guarantee program.

The President's initiative to provide assistance to the Russian Federation led to OGC drafting a series of bilateral agreements providing for concessional credit sales and donations of a wide variety of agricultural commodities to Russia. OGC also participated in the negotiations with representatives of the Russian government. The value of this assistance to Russia during FY 1993 totalled approximately $700 million.

Food Assistance Program: During FY 1993, OGC worked closely with program agencies in the development of the Department's efforts to promote the delivery of nutrition assistance benefits through electronic benefit transfer systems. OGC also worked extensively on several significant legislative packages including the Mickey Leland Childhood Hunger Relief Act and legislation which authorized the waiver of the statutory cap on the amount of funds which may be reallocated to states in the Special Supplemental Food Program for Women, Infants and Children (WIC). This permitted the reallocation of funds to states most in need and allowed the utilization of FY 1993 funds which could not otherwise have been obligated in that year.

Review of regulations was again a priority for OGC; OGC cleared for legal sufficiency 31 regulations concerning domestic food assistance programs. In this area, OGC played a key role in the development of complex new regulations for Federal solicitation and selection, on behalf of groups of state agencies, for the procurement of infant formula for use in the WIC Program and a major omnibus rule implementing a substantial number of unrelated WIC provisions enacted in Pub. L. 101-147.

Litigation involving the Department with respect to food assistance programs continues to be a significant element of work (38 open cases). There were 18 new court challenges to the domestic food assistance programs filed in FY 1993. Among other issues, the litigation challenged Food Stamp Program rules related to disaster relief and quality control claims. Most significantly, the U.S. Supreme Court held that the Federal government has a common law right to collect prejudgment interest on a debt owed by a state agency and affirmed the statistical methodology by which food stamp quality control claims against state agencies are calculated. Also related to food stamp quality control, OGC participated in the negotiation and settlement of 63 quality control claims against 25 state agencies for FY's 1986 through 1991. The state agencies agreed to invest approximately $45 million in programs designed to improve accuracy of benefit delivery. Litigation also challenged the Department's procedures for the disqualification of sponsors found to have been seriously deficient in their operation of the Child and Adult Care Food Program. In addition, 132 retailer/wholesaler enforcement judicial review cases were filed during FY 1993.

OGC attorneys also engaged in considerable work regarding the Department's disaster relief efforts in connection with the severe floods in the midwest.

## COMMUNITY DEVELOPMENT AND NATURAL RESOURCES

Farmers Home Administration (FmHA), Rural Development Administration (RDA) and Rural Electrification Administration (REA) Program. During FY 1993, OGC provided legal assistance to FmHA and RDA in all their major areas of activity. These encompassed Farmer Program Loans, Single- and Multi-Family Housing Loans, Community Program Loans and Business and Industry Loans. These major areas of activity include more than 30 statutorily-separate loan and grant programs. The Division also provided advice with respect to the rural development programs of REA. The Division was also involved in answering several requests for interpretation of the Agricultural Credit Improvement Act of 1992, and in reviewing many of the regulations required to implement this statute. The Division's advice concerned both proposed and recently enacted legislation, proposed and final regulations, directives interpreting and implementing regulations, litigation, informal advice, and a variety of legal documents. During FY 1993, the Division closed 5,293 work "items". This amounts to an over 7 percent increase over the work "items" closed in FY 1992. Formally tracked "items" amounted to almost 40 percent of total Division workload.

Legislative work included advice to FmHA, and working with Congress on items relating to Appropriations Bills. The Division also dealt with a large volume of correspondence, including some Congressional inquiries. The Division had been involved in offering guidance to various administrative officials regarding various aspects of the Secretary's temporary suspension of farm foreclosures. Regulatory matters included reviewing a new certified lender program for guaranteed farm operating loans to implement the 1992 Act. Other regulatory matters included revision of the guaranteed housing regulations, revisions of various farm loan servicing regulations, and regulations establishing an REA medical link program. In FY 1993 the Division reviewed 245 separate regulatory proposals.

The Division also assisted DOJ in defending especially important cases involving a variety of claims against FmHA, including a number of issues arising from the implementation of the Food, Agriculture, Conservation, and Trade Act of 1990. This activity included work both at the trial court and the appellate levels. Informal legal advice consisted of verbal or written advice to the client on all aspects of administrative law and the laws and regulations governing the making of loans and grants, including the complicated arena of lender liability under CERCLA. Drafting work included drafting various loan agreement, guarantee and security forms, as well as legislative proposals to be included in the Department's legislative package. The Community Development Division anticipates an increase in its workload for the future as more and more delinquent farm loans reach the judicial system and the field offices require our guidance on how to respond to issues arising out of both the Secretary's temporary suspension of farm foreclosures and implementation of recent legislation dealing with beginning farmers.

Rural Electrification and Telephone Programs: During FY 1993, substantial legal services were required in connection with the loan and grant programs of the Rural Electrification Administration (REA) and the Rural Telephone Bank (RTB). Most of REA's major lending programs experienced dramatic increases both in the aggregate amount of lending and in the number of transactions requiring loan documentation.

REA approved insured loans totalling $1.2 billion, almost double the FY 1992 total, to 256 electric borrowers and 43 telephone borrowers. REA guarantees of Federal Financing Bank (FFB) loans totalled approximately $180 million to 10 borrowers. In the telephone loan program, the Rural Telephone Bank made 38 loans totalling $175 million. REA approved repricing transactions totalling approximately $2.0 billion to 38 electric and telephone borrowers under a program which permits borrowers to reprice at current Treasury interest rates certain REA guaranteed FFB notes bearing high interest. This represents more than three times the dollar amount and number of repricing transactions completed in FY 1992, the first year of the program.

The legal services required in connection with REA and RTB lending programs included preparation of loan contracts, security instruments and related legal documents. OGC has undertaken the first major revision of the security instrument used in the

electric loan program in over 20 years. The project involves not only updating many provisions of security instruments but also encompasses fundamental changes in the nature of the relationship between REA and its borrowers. The project has impacts on REA, its borrowers, private lenders and other groups.

During FY 1993, Congress considered sweeping amendments to the program. The Rural Electrification Loan Restructuring Act (RELRA), P.L. 103-129, enacted in November 1993, significantly changed the structure of the both the electric and telephone loan programs. Substantial legal services were required in the negotiation, analysis and drafting of the legislation and legislative reports as well as with the preliminary drafting and review of regulations, scheduled for publication in December 1993, implementing RELRA.

OGC has drafted and reviewed a number of other significant REA regulations during FY 1992. These include regulations setting forth for the first time REA policy regarding lien accommodations and subordinations, implementing new REA programs providing for the discounted prepayment of electric insured loans and the refinancing program of REA guaranteed FFB loans, revising REA's software licensing requirements, and setting forth REA's policy on rural development investments.

The telephone program experienced an unprecedented number of acquisitions as several regional telephone operating companies have undertaken to sell or otherwise restructure ownership of their less urban exchanges. A number of telephone borrowers are seeking loans or lien accommodations to purchase and improve service in these exchanges. Associated legal services included the review, drafting and negotiation of transaction documents.

Legal services required in connection with financially-troubled REA borrowers continued at a high level during FY 1993. During the year, nine borrowers with debt totalling $6.7 billion were either in workout or bankruptcy. The workouts involved a range of legal issues and required negotiations with borrowers, creditors, state regulatory bodies and others as well as litigation in a variety of forums. During the fiscal year, agreements were reached with respect to restructuring the REA loans of four borrowers with debt totalling approximately $1.44 billion.

During FY 1993, OGC was required to provide substantial legal services in connection with territorial disputes involving REA borrowers. REA was a party to several cases involving attempts by municipalities to condemn those portions of the borrowers electric systems and service rights that are most profitable. Such takings threaten to frustrate the purpose to the Rural Electrification Act and REA, with OGC advice and assistance, is contesting the takings.

Forest Service (FS) Programs: In a climate of growing public concern on environmental issues, OGC provided significant legal counsel on land management planning, timber, minerals, wildlife, water, land status, recreation, grazing, and compliance with federal environmental and administrative laws. OGC has provided extensive legal services in connection with the Forest Service's implementation of ecosystem management, including participation in the development of President Clinton's Forest Plan for the

Pacific Northwest, the PACFISH initiative for the conservation of Pacific Salmon, and other undertakings.

With regard to timber, OGC provided substantial advice in response to numerous administrative appeals and significant litigation (70 pending cases) on the legality of decisions to offer individual timber sales under the National Environmental Policy Act, National Forest Management Act, Clean Water Act and Endangered Species Act. OGC represented or assisted the Department of Justice in representing the Forest Service in hundreds of cases involving timber sale purchasers filed in the Agriculture Board of Contract Appeals, U.S. Claims Court, U.S. District Courts, and U.S. Appellate Courts and in approximately 50 Forest Service debarment and/or suspension proceedings. Specifically, on defaulted timber sales, OGC has acted aggressively as recognized in an October 1993 GAO audit. OGC continues to play a major role on the DOJ-OGC Timber Default Team focused on resolving over 60 lawsuits seeking over $150,000,000 in damages from a large number of timber sale contracts defaulted in the early to mid-1980's. The OGC team has provided extensive assistance with strategy, numerous and exhaustive discovery and deposition requests and legal briefs.

OGC also represented the Forest Service before the Comptroller General in approximately 25 bid protests challenging timber sale offerings. Extensive advice and services were provided on issues involving the contractual relationship with timber sale purchasers. These issues involve the Government's financial security, the Small Business Timber Set Aside Program, contract administration, including modifications, cancellations and defaults, timber theft, bid rigging, debt collection, and bankruptcy.

OGC also continues to provide assistance to the Forest Service in referring to the Department of the Treasury those surety companies who, upon a purchaser's default, failed to pay the penal sums of the bonds and requesting that their certificates of authority to do business with the government be revoked. Escrow agreements have been negotiated with 5 surety companies for the penal sum of 55 bonds plus interest in the amount of $11,680,243. Important legal precedent also has been established in other defaulted timber sale contract cases, which has resulted in increased ability to collect damages and surety bonds. NRD is also assisting the Forest Service in creating a new performance bond and revised payment bond and blanket payment bond forms for use with the timber sale contract. The proposed bond forms and policy will be published in the Federal Register for notice and comment.

OGC continues to provide counsel on the Forest Service's implementation of the Forest Resources Conservation and Shortage Relief Act of 1990, which prohibits the export of unprocessed federal timber and the purchase of unprocessed federal timber by a person who exports unprocessed private timber in the western United States. OGC has assisted the Forest Service in responding to the numerous export questions that arise as the timber industry adjusts to the changing timber supply. NRD is also working with the Forest Service to perform a thorough review of current FSM/FSH directives and to develop national policy and

regulations regarding use and removal of forest products from the national forests. Legal work is also being provided on the legal restrictions and structure of an experimental, comprehensive land stewardship contract.

In the area of recreation special uses, OGC has provided assistance on various programs and litigation including ski area permits, outfitter and guides and campground permits. With substantial assistance from OGC, the Forest Service published proposed regulations in May governing group uses and distribution of printed material in the National Forest System. OGC is currently helping the Forest Service publish a final rule before the beginning of the next field season. OGC has conducted a comprehensive review of all legal authorities governing the agency's commercial recreation program. OGC has presented its findings on ways to restructure the program in order to minimize legal risk and administrative inconsistency.

In the area of federal minerals, OGC provided extensive legal services in connection with intricate proposed legislation which would reform the 1872 Mining Law, the statute governing the development of the last majority of mineral deposits on federal lands. As part of these services, OGC prepared a comprehensive analysis of the bill which was widely used by both the Forest Service and the Solicitor's Office of the Department of the Interior. OGC also played a critical role in an intra-departmental task force which identified weaknesses in the bill, drafted hundreds of amendments to remedy these problems and otherwise improve the legislation, and briefed House and Senate staff on the consequences of the bill and the proposed amendments. OGC also provided extensive assistance to the Forest Service in preparing legislative reports and related documents concerning the mining law reform bills. Substantial assistance was also provided in defending important mineral litigation and in responding to requests for legal advice arising from congressional oversight or problems encountered in administering the disposal of minerals.

Significant efforts are underway concerning legal issues associated with reserved and outstanding mineral rights on acquired lands. A major test case is being appealed to the Eighth Circuit Court of Appeals to determine the rights of the Federal Government to regulate surface impacts of outstanding mineral rights. In Georgia, the Department is preparing litigation under the Georgia Dormant Mineral Rights statute to quiet title to areas of clouded mineral titles due to outstanding minerals.

In the wildlife area, OGC provided substantial advice on complex questions concerning the Endangered Species Act and other wildlife laws. Significant litigation and questions arose from the national debate on the impact of national forest land management on the protection of species such as the spotted owl, the red-cockaded woodpecker, the Mount Graham red squirrel, the grizzly bear, pacific salmon and the marbled murrelet. Litigation has also begun over the federal agencies responsibilities for compliance with the Endangered Species Act and other federal environmental laws when granting access across National Forest System lands. OGC also reviewed Forest Service wildlife manual

directives, including the sensitive species program and animal damage control activities.

A major initiative of this Administration is to reform the rules by which cattle are grazed on public lands. In cooperation with the Forest Service and the Department of the Interior, OGC is drafting regulations to effect grazing reform measures on 100 million acres of National Forest lands. Additionally, OGC is currently defending several significant cases challenging Forest Service rights to regulate grazing rights.

Concerning Forest Service cooperative forestry problems, OGC is providing assistance implementing regulations for the Stewardship Incentive Program, including representation of the Department before the Internal Revenue Service to secure favorable tax treatment for benefits under that program. OGC is also assisting with cooperative research agreements between the Forest Service, state and private organizations and foreign governments.

In the area of lands and associated real property matters, OGC continues to provide assistance to the Forest Service on a variety of complicated property law matters including takings under the 5th Amendment to the Constitution, issues related to rights of access over federal land, issues related to rights of mineral owners under deeds of severance, and Indian treaty rights. OGC provides instructors for national lands training and the Legal Education Institute of the Department of Justice. Water rights and power regulation required considerable additional legal services in adjudications of reserved water rights, including Supreme Court review of the Snake River Adjudication, and coordination of Forest Service permit proceedings with licensing proceedings before the Federal Energy Regulatory Commission. In addition, the implementation of the Energy Policy Act of 1992, Pub.L. 102-486, which clarified the authority of the Forest Service to regulate hydropower projects on National Forest System lands and to be reimbursed for administrative costs associated with those projects, required significant legal review and drafting services.

Access issues have been very important in the last fiscal year. OGC is cooperating with the Department of the Interior in writing regulations to define rights granted under the Mining Law of 1866 (better known as R.S. 2477). In addition, OGC is formulating administrative and litigative options for assuring continued public access to the National Forests over traditional rights-of-way.

Land acquisitions and exchanges continue to require substantial legal resources. In FY 1993, the Forest Service obligated over $70 million in land acquisition funds in 413 purchase cases for the acquisition of 116,000 acres of land. Land exchanges totaled over 82,000 acres valued at over $61 million.

During FY 1993, the staff of the Natural Resources Division provided substantial legal advice and technical assistance to the Forest Service on the wide range of legislative matters in which it is involved. The Legislative Affairs section, within the Natural Resources Division, is devoted to assisting the Forest Service in the development and implementation of its legislative

program. Division attorneys work closely with the Forest Service Legislative Affairs staff to anticipate potential legal problems and impacts to Forest Service programs from pending legislation or legislative proposals. The Division also works closely with OGC's Legislative Division to ensure that Forest Service legislative documents receive expedited OGC and Departmental clearance. OGC attorneys assist in the drafting and review of proposed legislative reports on pending legislation, legislative proposals, testimony, and drafting services.

Division attorneys reviewed approximately 164 legislative reports and approximately 165 written statements of Administration witnesses. Division attorneys provided legal assistance in matters related to forest health and biodiversity, ecosystem management, special management areas, wilderness legislation, wild and scenic river designations (including an omnibus state of Washington proposal to designate 49 rivers), the Department of the Interior and related agencies appropriations, Native American freedom of religion, the Navajo-Hopi land dispute, numerous land exchanges, recreation fees, grazing fees, Clean Water Act reauthorization, and mining law reform. Division attorneys also accompany Forest Service personnel to meetings with other Departments or agencies and the Office of Management and Budget, and to meetings with Congressional members and staff, and hearings and mark-ups to provide legal assistance if needed.

OGC provided substantial assistance on issues relating to federal laws such as hazardous waste regulation and cleanup. For example, OGC provided advice to the Forest Service on cost recovery from potentially responsible parties in hazardous waste cases involving millions of dollars. Legal assistance was also provided on natural resource damage issues in cases where the damages also involve many millions of dollars, including advice provided on the Exxon Valdez matter. OGC attorneys also defended Forest Service interests as states increased their enforcement efforts. Finally, OGC has provided substantial assistance on regulatory and legislative matters, including recent Clean Air Act regulatory issues, as well as Superfund and Clean Water Act reauthorization. A national team of OGC attorneys established in 1991 to assist USDA agencies on pollution control matters continues to experience great increases in the demand for advice in this growing area.

OGC provided substantial assistance on other important issues relating to federal laws such as Native American treaty rights and religious freedom, use of herbicides and pesticides, and historic and archaeological resource protection. In connection with the development of important regulations and policy statements, OGC provided substantial advice on compliance with federal administrative laws such as the Administrative Procedure Act, the Paperwork Reduction Act, the Freedom of Information Act, the Privacy Act, and executive orders and other authorities governing federal decision making. Substantial effort also was devoted to assisting the Forest Service in development and implementation of its administrative appeal processes.

Soil Conservation Service (SCS) Programs: OGC provided legal counsel on range management, flood control and water resources projects, and natural resource protection; advice on the

application of state and federal statutes to programs that affect approximately 3,000 soil and water conservation districts; the defense of lawsuits brought by parties challenging agency activities and the prosecution of claims on behalf of the agency. OGC increased the amount of instructional services provided to SCS staff on legal issues and responsibilities, focusing on preventative legal assistance to the agency. Substantial legal review continues to be provided to SCS on activities related to development and implementation of conservation practices that meet the federal and state water quality requirements under the Clean Water Act. OGC was instrumental in the development of strategies and actions to provide assistance to farmers, landowners, and communities affected by the devastating Midwest flooding in 1993.

There continues to be a considerable increase in OGC services to SCS concerning implementation of the conservation title of the Food Security Act of 1985 as amended by the Food, Agriculture, Conservation and Trade Act of 1990 (FACT Act). FACT assigns specific responsibility to the SCS for assuring compliance by agricultural producers with the conservation compliance requirements, and the sodbuster and swampbuster proscriptions. By December 31, 1994, all agricultural producers will have to be in full compliance or risk loss of USDA subsidies and other benefits. In order to meet the statutory deadline, SCS to date has completed over 1.6 million conservation plans with at least 250,000 remaining yet to be done. The agency has made 1.63 million highly erodible land determinations with 2.8 million more to be done. The agency has completed 764,000 wetland determinations with 4.4 million to be done when the pending wetland guidelines are released. OGC has assisted SCS implement to President's Wetland Conservation Initiative which places additional responsibilities on SCS, including development of uniform wetland delineation criteria and procedures.

## LEGISLATION, LITIGATION, AND RESEARCH AND OPERATIONS

Legislation: During FY 1993, the Legislative Division coordinated legal review of 796 legislative reports on pending bills and legislation proposed by the Administration. The Legislative Division also coordinated the legal review of the written testimony of 415 Administration witnesses before Congressional Committees. The Division staff prepared or assisted in the preparation of drafts of bills or amendments on request for the Secretary, Members of Congress, Congressional Committees, and agencies within the Department, including the Administration's proposal for reorganization of the Department of Agriculture (H.R. 3171); the Secretary's proposals to safeguard the nation's meat and poultry supply from farm to table; the United States Grain Standards Act Amendments of 1993 (Public Law 103-156); the Rural Electrification Loan Restructuring Act of 1993 (Public Law 103-129); and amendments to the Food Stamp Act of 1977 to ensure adequate access to retail food stores by food stamp recipients (H.R. 3436). Technical assistance was provided to Congressional Committees and USDA legal and policy officials in the drafting, clearance, and consideration by the Congress of legislation and ancillary legislative materials which became the agriculture portions of the Supplemental Appropriations Act of

1993 (Public Law 103-50); the Omnibus Budget Reconciliation Act of 1993 (Public Law 103-66); and the Government Reform and Savings Act of 1993 (H.R. 3400). The staff also coordinated legal review of legislative reports and Congressional testimony relating inter alia to Mid-west flood relief; negotiation of a North American Free Trade Agreement; support for the democracies emerging from the former Soviet Union; environmental improvements at the U.S.-Mexico border; administration of the disaster assistance and other programs under the Food, Agriculture, Conservation and Trade Act of 1990; reauthorization of the National Aquaculture Act of 1980; improvements in rural development and rural electrification programs; numerous issues affecting management of National Forest System lands, including mineral exploration and development, wilderness, and wild and scenic rivers; and reduction in the number of advisory committees serving the Department.

Litigation: OGC is responsible for the Department's position in cases on appeal. Staff attorneys assigned to the Litigation Division draft and review documents concerning cases in the United States Supreme Court, the United States Courts of Appeals, and State appellate tribunals. These attorneys brief and argue certain cases in the federal Circuit Courts of Appeals and in State appellate courts. During FY 1993 Litigation Division attorneys were assigned full responsibility for 33 appellate cases, and they obtained favorable results in 13 of the cases and unfavorable results in none of the cases. The other 20 appellate cases are awaiting briefing schedules, are fully briefed and argued, or are waiting to be scheduled for oral argument in the near future.

The appellate cases handled by the Litigation Division attorneys increased substantially in FY 1993, and involved diverse subjects and difficult factual and legal complications. The following cases illustrate the nature of the important issues addressed in the appellate litigation handled by the Division's attorneys.

Schmidt v. U.S. Dept. of Agriculture. Paul G. and Pauline B. Schmidt and their son Paul A. operated a farm in Arkansas; were indebted to Farmers Home Administration (FmHA) on loans secured by their dwelling, farmland, livestock and equipment; and defaulted on their loan payments to FmHA. In response to FmHA's notice of intent to take action on their delinquencies, the Schmidts applied for primary loan servicing, leaseback/buyback, and homestead protection. The agency denied primary loan servicing because the Schmidts acted in bad faith by selling livestock without FmHA's permission, denied leaseback/buyback based on that bad faith, and denied homestead protection on the ground that the Schmidts' farming operation -- conducted through a Subchapter S corporation -- failed to turn any profits over a six-year period of time. A district court upheld the agency's decision. On appeal, the Eighth Circuit affirmed in part and reversed and remanded for agency reconsideration in part.

In the appellate litigation the Schmidts did not dispute the fact that they were ineligible for primary loan servicing on the ground they acted in bad faith. However, they vigorously challenged the agency's conclusion that bad faith also deprived them of leaseback/buyback privileges, and maintained they were

entitled to homestead rights. The Court of Appeals deferred to the Secretary's interpretation of the regulation governing a leaseback/buyback of the farm, and affirmed the leaseback/buyback denial. Thereafter, however, the Appeals Court held that the Secretary had to recognize the Schmidts' Subchapter S corporation's gross farm revenue when evaluating their homestead privileges, and remanded to the district court with instructions to remand to the Secretary for further consideration of the application for homestead protection. The controlling statute makes homestead available when the farmer had gross farm income comparable to similar farms in the area and 60 percent of his gross income came from farming in at least two of six years, and the Schmidts' Subchapter S corporation generated gross farm income of $800,000 in 1983 and over $1,000,000 in 1984.

Tony Hudler v. United States of America was a Perishable Agricultural Commodities Act responsibly connected case before the Fifth Circuit. Hudler was found to be responsibly connected to Green Grove, Inc., a company that repeated flagrant violations of the PACA. Hudler signed two documents, including the Green Grove bankruptcy petition, as president.

Kinion v. United States of America. The Kinions were delinquent farm program borrowers who sought a net recovery value buy-out from FmHA. After an initial computation of the buy-out amount by the FmHA County Supervisor and before the buy-out was approved by the State Director, a storm destroyed two poultry houses that were part of the security for the loans. The Kinions sought to pay off the loans for the original buy-out amount and keep the $264,000 insurance proceeds. FmHA regulations require the State Director to approve all buy-outs. The Eighth Circuit upheld the FmHA position and held that State Director approval of a net recovery value buy-out was necessary.

In United States of America v. Ward, 985 F.2d 500 (10th Cir. 1993), the Tenth Circuit became the first federal court of appeals to hold that foreclosure actions by the United States are not subject to the six-year statute of limitations found in 28 U.S.C. § 2415(a). The Farmers Home Administration had brought an action to foreclose on mortgages securing debt that arose from FmHA loans. The Tenth Circuit held that § 2415(a), which limits the time within which actions for "money damages" may be brought, did not apply. The Court also rejected the debtor's argument that a state statute, under which a lien is extinguished if the action on the underlying note is barred by limitations, barred the foreclosure action.

In Faour v. United States Dept. of Agriculture, the Fifth Circuit joined the Third and Eighth Circuits in adopting the per se standard for making "responsibly connected" determinations under the Perishable Agricultural Commodities Act, rather than the rebuttable presumption standard followed in the District of Columbia Circuit. The Faour Court concluded that the PACA's language is clear, and that anyone falling within any of three statutory categories (officer, director, greater than 10 percent shareholder) is automatically responsibly connected to a PACA-violating company.

In addition to actually litigating a significant number of important appellate cases, Litigation Division attorneys reviewed and made contributions to many of the briefs and arguments in other significant appellate cases involving the Department of Agriculture but handled by Justice Department attorneys. To cite but three examples, Litigation Division attorneys have assisted in the Department of Justice's preparations to present the Government's position in Graham Cole v. USDA, a case which addressed the validity of penalties imposed by USDA on a tobacco dealer for selling tobacco in excess of his quota. Cole argued in district court that he should not be liable for penalties unless the government could identify the producer of the tobacco who sold it to the dealer, and the court held that the penalty was a "producer penalty" and not assessable against Cole. The appeal is pending in the 11th Circuit.

Simons, d/b/a Frank Simons Dairy v. U.S. Simons was found to be ineligible to receive benefits under the Dairy Termination Program because he violated the branding requirements, had not fully accounted for all cows in his herd, and maintained an interest in dairy production facilities within five years of having entered the program. He appealed the Court of Federal Claims' grant of summary judgment in favor of the government. The government response to the appeal in the Federal Circuit argued that: 1) the factual determinations and legal conclusions of the USDA officials were precluded by statute from judicial review; and 2) in the alternative, if judicial review was available, the determination of the Simons' ineligibility was not arbitrary and capricious.

United States of America v. Dos Cabezas Corp., The Ninth Circuit held that foreclosure actions by the United States are not governed by the six-year statute of limitations in 28 U.S.C. § 2415(a), but the same is not true for deficiency judgment actions. The case involved FmHA installment loans evidenced by several promissory notes and secured by deeds of trust. The borrowers defaulted, and FmHA accelerated the entire indebtedness and demanded immediate payment. When payment was not made, the government brought suit to foreclose on the deeds of trust, and for a deficiency judgment in the event foreclosure did not satisfy the entire debt. However, the Court rejected the government's argument that the deficiency judgment action was "an incident of foreclosure" and thus immune to limitations. Rather, the Court held that a deficiency judgment action is "an action for money damages founded upon a contract," and thus governed by 28 U.S.C. § 2415(a).

Litigation Division attorneys also made important contributions to several other briefs filed by the Justice Department on behalf of the Secretary, and they will participate in the moot court preparations for the oral arguments.

Finally, but certainly of equal importance, OGC's appellate lawyers prepared the Department of Agriculture's recommendations to the Solicitor General on whether to appeal 81 adverse decisions of various trial courts during FY 1993. In sum, Litigation Division attorneys were responsible for a total of 114 appellate cases during the past fiscal year. The number of

FY 1993 appellate recommendations were comparable to the previous fiscal year. The appellate workload increased appreciably due to the added cases handled directly by Division attorneys, however.

Research and Operations: During FY 1993, OGC received 204 new administrative claims filed under the Federal Tort Claims Act (FTCA) and 172 claims were open at the end of FY 1993. Currently, 147 FTCA cases are in litigation. At the end of FY 1993, there were approximately 78 cases in litigation or administrative proceedings with "civil rights" implications relating to the Department's personnel policy, grant programs, and direct assistance programs.

OGC attorneys provided representation for agencies of the Department in several appeals by Departmental employees of adverse actions before the Merit Systems Protection Board. Further, OGC attorneys provided representation for agencies of the Department in several administrative complaints, both individual and class, of employment discrimination by Departmental employees before the Equal Employment Opportunity Commission. Additionally, OGC attorneys rendered advisory opinions and reviewed proposed Departmental regulations as to enforcement of various civil rights statutes prohibiting discrimination in programs receiving Federal financial assistance from the Department. Legal services were also rendered in the areas of conflict of interest and conduct proscribed by regulations issued pursuant to executive order; budget and fiscal matters; property management; advisory committee activities; internal reorganizations of the Department; and similar matters.

OGC was involved in training USDA employees with regard to the Office of Government Ethics, revised Standards of Ethical Conduct for Employees of the Executive Branch (5 C.F.R. Part 2635), Financial Disclosure (5 C.F.R. Parts 735, 2633, and 2634). It also assisted the Office of Personnel in efforts to revise the Departmental employee conduct regulations (7 C.F.R. Part 0) in conjunction with the implementation of OGE's government-wide standards of ethical conduct. Continuing efforts also were made to collect more efficiently money owed to the Department. OGC also was involved in litigation involving offsets taken against timber purchasers under the Debt Collection Act and concerning whether the provisions of that Act apply to offsets involving separate contracts.

OGC continued to counsel the science and education agencies of the Department regarding legal issues arising from the administration of the agricultural research, extension, and teaching programs. During FY 1993, a significant portion of these issues related to the administration of the research title of the 1990 FACT Act. Specifically, legal assistance included review of the final rule establishing the administrative provisions for the Biotechnology Risk Assessment Research Grants Program; review of the final rule revising the administrative provisions for the Rangeland Research Grants Program; review of regulations establishing the administrative provisions for the Agricultural Sciences National Needs Graduate Fellowship Grants Program and the Federal Excess Personal Property Loan Program; review of implementing documentation and agreements to make fully operational the Alternative Agricultural Research and

Commercialization Center; and preparation of legal opinions on the meaning and effect of various provisions of the FACT Act and related appropriations issues.

During FY 1993, the Department issued over 17,000 contract actions obligating more than $3 billion for the acquisition of services, supplies, and construction to support agency operations. OGC provided legal advice to all agencies of the Department concerning these acquisitions. This assistance included drafting and reviewing regulations; reviewing solicitation documents; handling mistake-in-bid and protest matters; providing advice in pre-award and performance issues; and providing the assistance necessary to assert or defend contract claims. OGC continued to receive an increased number of requests for the review of Agriculture Property Management Regulations in FY 1993 because the Department is revising and updating the Agriculture Property Management Regulations. The number of requests from contracting and leasing personnel involving matters of bankruptcy and organizational conflicts of interest involving former employees of the Department continued to climb in FY 1993. Staff attorneys in Research and Operations were responsible for 14 of the 136 cases handled by the Agriculture Board of Contract Appeals. The remaining cases were the responsibility of the field attorneys or attorneys in the Washington office supporting CCC program activities. In addition, Research and Operations attorneys were responsible for 19 acquisition-related cases in litigation in the Claims Court and Federal District Courts pending at the end of the fiscal year. Research and Operations attorneys also were assigned to 75 acquisition review teams that were open at the conclusion of FY 1993. The acquisition review teams are responsible for monitoring and approving the acquisitions of ADPE and related support services within the Department. There also were a significant number of requests for opinions relating to the funding of cost-reimbursable agreements, intra-agency transfers, service contracts, particularly with regard to indefinite quantity acquisitions and acquisitions for studies. In addition, matters relating to procurement and nonprocurement debarment and suspension received considerable attention.

During FY 1993, Research and Operations attorneys began to see increasing demand for legal resources to be devoted to the USDA Info Share program. The purpose of the program is to coordinate the planning, acquisition, development, implementation, and management of information resources of the USDA farm service and rural development agencies to serve USDA customers better. Info Share includes all information resources requirements for hardware, software, telecommunications, and support services of the USDA farm service and rural development agencies. The goal is that by FY 1998 agencies will share common data and provide data electronically to their customers. Numerous procurements are required to accomplish this goal. Consequently, significant legal resources will be required to support this program in the areas of solicitation review, procurement integrity, conflict questions, 8(a) contracting, Freedom of Information Act (FOIA), Privacy Act implications, data rights and intellectual property, protest litigation, and contract administration problems on existing contracts, including appeals. Also, during FY 1993, substantial time was devoted to legal issues arising out of

unauthorized Forest Service exchanges of Federal aircraft with airtanker contractors.

During FY 1993, legal services were rendered with respect to 384 FOIA appeals. Seventeen FOIA cases were in litigation at the beginning of the fiscal year and 2 new cases were filed against the Department in FY 1993. The Division also rendered substantial legal services in connection with computer matching programs to ferret out fraud, waste, and abuse.

Further, legal activities were performed pursuant to Executive Order No. 12088, and the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, on behalf of the Agricultural Research Service (ARS). Research and Operations attorneys provided representation to the ARS concerning compliance with environmental laws at ARS facilities. Division attorneys negotiated compliance agreements with the United States Environmental Protection Agency and State environmental enforcement agencies pursuant to Executive Order No. 12088 concerning compliance with the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Clean Water Act, and State environmental statutes.

Under the direction of OGC, applications for patents were prepared on inventions by USDA employees and contractors with the objective of obtaining patent protection for the government. Eighty new inventions were reported to OGC during FY 1993. Eighty patent applications were prepared and submitted to the U.S. Patent Office during FY 1993. Fifty-seven patents were obtained, 15 applications were abandoned, and 14 cases were otherwise closed.

## REGIONAL OFFICES

OGC currently has five regional and seventeen branch offices which provide legal services to numerous USDA agencies with field organizations, such as the Agricultural Marketing Service, Agricultural Stabilization and Conservation Service, Farmers Home Administration, Food and Nutrition Service, Forest Service and Soil Conservation Service. In addition, OGC has placed several employees with client agency personnel in locations where OGC does not maintain an office, in order to provide direct legal services where needed.

OGC's field offices provide legal advice and services on all matters within the scope of delegations of authority vesting extensive power to implement programs at the state and local level in agency field staff, and on litigation within delegations by the Attorney General to United States Attorneys. Work on this litigation is completed at the local level, without involvement of the Washington office or the Department of Justice. During FY 1993, the Department had 40,859 cases in civil litigation. Ninety-five percent were the responsibility of OGC's 22 field offices. Compared to FY 1992, we had a substantial decrease in the backlog of these cases.

A highly successful result was obtained in the sensitive species case of Southern Timber Purchasers Council v. Alcock. The 11th Circuit Court of Appeals held that timber purchasers lacked standing to challenge the Forest Service's reduction of timber harvest levels designed to protect the red cockaded woodpecker. A major litigation victory was obtained in Harris v. United States, which held that FmHA had legal authority to place wetlands easements on inventory property subject to leaseback/buyback rights by the former borrower. OGC also had successful litigation involving access to National Forests, grazing allotment regulations, and mining claims.

OGC experienced an increase in litigation workload which emphasized water resources, endangered species, land use authorizations and access. Specific examples of litigation efforts include representing the USDA in Idaho State water courts concerning the Snake River Water Rights Adjudication, the establishment and implementation of eco-system management in the Western United States, resolving endangered species issues involving the grizzly bear, gray wolf, chinook salmon and Mexican spotted owl.

In addition to work on civil litigation, legal assistance during the year included work on cases before administrative law judges or boards including legal assistance in implementing the provisions of the Wetland Reserve and Emergency Wetlands Reserve Programs, centered primarily in the Midwestern states; providing representation before the Equal Employment Opportunity Commission and Merit System Protection Board in the areas of contracts and administrative issues, loan making and servicing; real estate transactions; violations of state and federal criminal laws including participation with the Forest Service in a Timber Theft Task Force that produced several indictments and a significant conviction; timber sale and procurement contracts; interpretations of state laws that affect federal jurisdiction and programs; application of federal regulations; assuring that local policy decisions were within the scope of delegated authorities and consistent with national policies; municipal financing practices required to meet federal laws and regulations; uses of national forests and their environmental consequences; the effect of state laws on federal lands; pre-litigation work including negotiations and/or settlements that avoid the need to litigate; and the direct handling of 7,602 nonjudicial foreclosure cases, a decrease of 536 below FY 1992.

OGC provided direct assistance in support of the team that is responsible for implementing the President's program for management of federal lands in the Pacific Northwest and participated in the numerous false claim and civil forfeiture actions brought against navel and valencia orange handlers in an effort to amend the navel and valencia orange marketing orders. With the Department of Justice, OGC is working on efforts to accomplish a global settlement of that litigation.

Further progress was made throughout the fiscal year in strengthening the OGC regional structure to increase the ability of the office to operate as a national law office. This has been enhanced through information exchange, reports, weekly conference calls, cross-servicing of cases among offices, and emphasis on training of client and OGC personnel. These efforts will continue in the future.

# AGRICULTURAL RESEARCH SERVICE

## Purpose Statement

The Agricultural Research Service (ARS) was established on November 2, 1953, pursuant to authority vested in the Secretary of Agriculture by 5 U.S.C. 301 and Reorganization Plan No. 2 of 1953, and other authorities.

The research performed by ARS is authorized by the Department of Agriculture Organic Act of 1862 (7 U.S.C. 2201, 2204), the Research and Marketing Act of 1946, amended (7 U.S.C. 427, 1621), the Food and Agriculture Act of 1977, as amended (7 U.S.C. 1281 note), the Food Security Act of 1985 (7 U.S.C. 3101 note), and the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 1421 note).

ARS is responsible for conducting research on:

* Soil, Water and Air Sciences
* Plant Sciences
* Animal Sciences
* Commodity Conversion and Delivery
* Human Nutrition
* Integration of Agricultural Systems

The research applies to a wide range of goals; commodities; natural resources; fields of science; and geographic, climatic and environmental conditions.

As the Department of Agriculture's in-house research agency, ARS has major responsibilities for conducting and leading the national agricultural research effort. ARS provides initiative and leadership by providing:

* Research on broad regional and national problems.
* Research to support Federal action and regulatory agencies.
* Expertise to meet national emergencies.
* Research support for international programs.
* Scientific resource to the Executive Branch and Congress.

The mission of ARS research is to develop new knowledge and technology which will insure an abundance of high quality agricultural commodities and products at reasonable prices to meet the increasing needs of an expanding economy and to provide for the continued improvement in the standard of living of all Americans. This mission focuses on the development of technical information and technical products which bear directly on the need to: (1) manage and use the Nation's soil, water, air, and climatic resources, and improve the Nation's environment; (2) provide an adequate supply of agricultural products by practices that will maintain a permanent and effective agriculture; (3) improve the nutrition and well-being of the American people; (4) improve living in rural America; and (5) strengthen the Nation's balance of payments.

ARS' Headquarters offices are located in Washington, D.C. metropolitan area. The field activities are managed on a national basis through eight Area offices. Research is conducted at field locations in the States, District of Columbia, Puerto Rico, the Virgin Islands, and in several foreign countries. Much of the work is conducted in direct cooperation with the State agricultural experiment stations, other State and Federal agencies, and private organizations.

As of September 30, 1993, there were 6,682 full-time employees and 1,168 other than full-time employees. Of the total, 494 full-time employees and 23 other than full-time employees, worked in the Headquarters offices.

Under the proposed reorganization, this Agency will be merged into the newly established Agricultural Research and Education Service.

AGRICULTURAL RESEARCH SERVICE

Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Direct Appropriation: | | | | | | |
| Agricultural Research Service | $660,667,000 | 7,953 | $683,901,000 | 7,910 | $701,218,000 | 7,762 |
| Buildings and Facilities | 34,514,000 | -- | 32,743,000 | -- | 25,700,000 | -- |
| Total, Appropriation | 695,181,000 | 7,953 | 716,644,000 | 7,910 | 726,918,000 | 7,762 |
| Deduct Allotments to Other Agencies: | | | | | | |
| Forest Service | -345,255 | -- | -361,000 | - - | -361,000 | -- |
| Net | 694,835,745 | 7,953 | 716,283,000 | 7,910 | 726,557,000 | 7,762 |
| Allocations from: | | | | | | |
| Hazardous Waste Mgmt. | 1,855,000 | -- | 1,233,000 | -- | 5,356,000 | -- |
| Reimbursements from other USDA Appropriations: | | | | | | |
| Agricultural Marketing Service | 292,771 | 1 | 320,000 | 1 | 320,000 | 1 |
| Animal and Plant Health Inspection Service | 7,982,780 | 50 | 8,722,000 | 49 | 8,722,000 | 48 |
| Federal Grain Inspection Service | 238,927 | 2 | 261,000 | 2 | 261,000 | 2 |
| National Agricultural Library | 428,347 | 2 | 468,000 | 2 | 468,000 | 2 |
| Forest Service | 1,564,553 | 3 | 1,709,000 | 3 | 1,709,000 | 3 |
| Food Safety and Inspection Service | 1,325,772 | 3 | 1,448,000 | 3 | 1,448,000 | 3 |
| Extension Service | 75,284 | 1 | 82,000 | 1 | 82,000 | 1 |
| Office of International Cooperation and Development | 1,496,860 | 2 | 1,635,000 | 2 | 1,635,000 | 2 |
| Soil Conservation Service | 708,492 | 2 | 774,000 | 2 | 774,000 | 2 |
| Cooperative State Research Service | 309,946 | 1 | 339,000 | 1 | 339,000 | 1 |
| Miscellaneous Reimbursements | 99,436 | 2 | 109,000 | 2 | 109,000 | 2 |
| Total, Other USDA Funds | 16,378,168 | 69 | 17,100,000 | 68 | 21,223,000 | 67 |
| Other Federal Funds: | | | | | | |
| Department of Defense | 924,814 | 3 | 1,010,000 | 3 | 1,010,000 | 3 |
| Department of Energy | 786,460 | 2 | 859,000 | 2 | 859,000 | 2 |
| Department of Health and Human Services | 25,000 | -- | 27,000 | -- | 27,000 | -- |
| Department of Interior | 521,656 | 2 | 570,000 | 2 | 570,000 | 2 |
| Department of State | 76,830 | 1 | 84,000 | 1 | 84,000 | 1 |

## Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Other Federal Funds (continued) | | | | | | |
| Environmental Protection Agency | $1,488,159 | 3 | $1,626,000 | 3 | $1,626,000 | 3 |
| Nat'l Aeronautics & Space Administration | 170,904 | 1 | 187,000 | 1 | 187,000 | 1 |
| Miscellaneous Reimbursement | 2,334,402 | -- | 2,550,000 | -- | 2,550,000 | -- |
| Total, Other Federal Funds | 6,328,225 | 12 | 6,913,000 | 12 | 6,913,000 | 12 |
| Non-Federal Funds: | | | | | | |
| State of California | 405,048 | 2 | 443,000 | 2 | 443,000 | 2 |
| Binational Agriculture Research & Development Agreement (BARD) | 354,831 | 2 | 388,000 | 2 | 388,000 | 2 |
| Quarters and Subsistence | 189,217 | -- | 207,000 | -- | 207,000 | -- |
| North Carolina State University | 283,964 | 1 | 310,000 | 1 | 310,000 | 1 |
| Cotton Inc. | 238,247 | 1 | 260,000 | 1 | 260,000 | 1 |
| Florida Department of Natural Resources | 129,883 | 1 | 142,000 | 1 | 142,000 | 1 |
| Florida Department of Environment Regulation | 44,999 | -- | 49,000 | -- | 49,000 | -- |
| Texas A&M Univ.Agric. Experiment Station | 63,875 | 1 | 70,000 | 1 | 70,000 | 1 |
| Miscellaneous Reimbursements | 2,151,722 | -- | 2,351,000 | -- | 2,351,000 | -- |
| Total, Non-Federal Funds | 3,861,786 | 8 | 4,220,000 | 8 | 4,220,000 | 8 |
| Miscellaneous Contributed Funds | 9,489,267 | 53 | 11,500,000 | 52 | 11,500,000 | 51 |
| Total, Agricultural Research Service | 730,892,191 | 8,095 | 756,016,000 | 8,050 | 770,413,000 | 7,900 |

Agricultural Research Service

Permanent Positions by Grade and Staff-Year Summary
1993 Actual and Estimated 1994 and 1995

| | 1993 Actual | | | 1994 Estimate | | | 1995 Estimate (1) | | |
|---|---|---|---|---|---|---|---|---|---|
| Grade | Hdqtrs | Field | Total | Hdqtrs | Field | Total | Hdqtrs | Field | Total |
| ES-6 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| ES-5 | 7 | 7 | 14 | 7 | 7 | 14 | 7 | 7 | 14 |
| ES-4 | -- | 11 | 11 | -- | 11 | 11 | -- | 11 | 11 |
| ES-3 | 1 | 5 | 6 | 1 | 5 | 6 | 1 | 5 | 6 |
| ES-2 | -- | 5 | 5 | -- | 5 | 5 | -- | 5 | 5 |
| ES-1 | 4 | 13 | 17 | 4 | 13 | 17 | 4 | 13 | 17 |
| GS/GM-15 | 50 | 417 | 467 | 50 | 417 | 467 | 49 | 413 | 462 |
| GS/GM-14 | 36 | 557 | 593 | 36 | 557 | 593 | 35 | 549 | 584 |
| GS/GM-13 | 100 | 697 | 797 | 100 | 692 | 792 | 98 | 679 | 777 |
| GS-12 | 104 | 635 | 739 | 105 | 627 | 732 | 103 | 609 | 712 |
| GS-11 | 12 | 737 | 749 | 13 | 727 | 740 | 12 | 708 | 720 |
| GS-10 | 2 | 17 | 19 | 2 | 17 | 19 | 2 | 15 | 17 |
| GS-9 | 16 | 794 | 810 | 18 | 788 | 806 | 16 | 775 | 791 |
| GS-8 | 2 | 345 | 347 | 2 | 343 | 345 | 2 | 338 | 340 |
| GS-7 | 57 | 688 | 745 | 60 | 680 | 740 | 57 | 668 | 725 |
| GS-6 | 94 | 593 | 687 | 99 | 585 | 684 | 96 | 583 | 679 |
| GS-5 | 47 | 625 | 672 | 50 | 617 | 667 | 48 | 609 | 657 |
| GS-4 | 12 | 268 | 280 | 14 | 266 | 280 | 12 | 261 | 273 |
| GS-3 | 2 | 84 | 86 | 4 | 82 | 86 | 4 | 77 | 81 |
| GS-2 | -- | 66 | 66 | -- | 66 | 66 | -- | 66 | 66 |
| GS-1 | 11 | 59 | 70 | 13 | 57 | 70 | 12 | 58 | 70 |
| Positions at rates Established by Act June 20, 1958 (U.S.C. 3104) (ST)..... | -- | 22 | 22 | -- | 22 | 22 | -- | 20 | 20 |
| Grades Established under Foreign National Pay Plan Manual.. | -- | 12 | 12 | -- | 12 | 12 | -- | 11 | 11 |
| Ungraded Positions.... | 3 | 686 | 689 | 4 | 680 | 684 | 3 | 667 | 670 |
| Total Permanent Positions.... | 561 | 7,343 | 7,904 | 583 | 7,276 | 7,859 | 562 | 7,147 | 7,709 |
| Unfilled Positions end-of-year | -47 | -772 | -819 | -47 | -772 | -819 | -47 | -772 | -819 |
| Permanent Employment end-of-year | 514 | 6,571 | 7,085 | 536 | 6,504 | 7,040 | 515 | 6,375 | 6,890 |
| Staff Years: | 563 | 7,532 | 8,095 | 582 | 7,468 | 8,050 | 561 | 7,339 | 7,900 |

(1) Number of positions and grade levels are distributed on a prorata basis to meet the goals of ARES realignment.

AGRICULTURAL RESEARCH SERVICE

CLASSIFICATION BY OBJECTS

1993 Actual, and Estimated 1994, and 1995

| | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| Personnel Compensation: | | | |
| Headquarters | $23,984,133 | $25,776,882 | $25,465,437 |
| Field | 283,685,355 | 293,344,118 | 296,433,563 |
| 11 Total Personnel Compensation | 307,669,488 | 319,121,000 | 321,899,000 |
| 12 Personnel Benefits | 65,993,691 | 69,144,000 | 69,644,000 |
| 13 Benefits for former employees | 685,512 | -- | -- |
| Total Pers. Comp. & Benefits | 374,348,691 | 388,265,000 | 391,543,000 |
| Other Objects: | | | |
| 21 Travel and transportation of persons | 10,966,998 | 11,148,000 | 11,621,000 |
| 22 Transportation of things | 1,062,787 | 1,095,000 | 1,142,000 |
| 23.2 Rent paid to others | 1,313,041 | 1,339,000 | 1,397,000 |
| 23.3 Communications, utilities and miscellaneous charges | 29,381,959 | 29,946,000 | 31,212,000 |
| 24 Printing and reproduction | 1,389,442 | 1,414,000 | 1,474,000 |
| 25.1 Consultant services | 0 | 115,000 | 115,000 |
| 25.2 Other Services | 85,984,615 | 88,042,000 | 91,699,000 |
| 25.3 Purchases of goods and services from Government accounts | 27,796,580 | 28,931,000 | 29,415,000 |
| 25.4 Operation of GOCOs | 27,580,504 | 28,704,000 | 29,185,000 |
| 25.5 Research and development contracts | 34,672,301 | 36,088,000 | 36,689,000 |
| 26 Supplies and materials | 48,792,377 | 51,153,000 | 53,317,000 |
| 31 Equipment | 32,892,409 | 35,011,000 | 37,588,000 |
| 32 Lands and Structures | 6,836,702 | 8,166,000 | 6,729,000 |
| 41 Grants, subsidies, and contributions | 13,938,716 | 16,163,000 | 13,092,000 |
| Total Other Objects | 322,608,431 | 337,315,000 | 344,675,000 |
| Total Obligations | 696,957,122 | 725,580,000 | 736,218,000 |
| Position Data: | | | |
| Average Salary, ES positions | $101,912 | $106,000 | $107,048 |
| Average Salary, GM/GS positions | 38,027 | 39,549 | 39,944 |
| Average Grade, GM/GS positions | 9.44 | 9.44 | 9.44 |
| Average Salary of Ungraded positions | 34,939 | 36,336 | 36,670 |

Note: Includes obligations for both Salaries and Expenses and Buildings and Facilities accounts.

PROPOSED LANGUAGE CHANGES

AGRICULTURAL RESEARCH SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Salaries and Expenses:

For necessary expenses to enable the Agricultural Research Service to perform agricultural research and demonstration relating to production, utilization, marketing, and distribution (not otherwise provided for), home economics or nutrition and consumer use, and for acquisition of lands by donation, exchange, or purchase at a nominal cost not to exceed $100, [$692,469,000] $698,718,000: Provided, That appropriations hereunder shall be available for temporary employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed $115,000 shall be available for employment under 5 U.S.C. 3109: Provided further, That hereafter appropriations available to the Department of Agriculture can be used to provide financial assistance to the organizers of national and international conferences, if such conferences are in support of agency programs: Provided further, That appropriations hereunder shall be available for the operation and maintenance of aircraft and the purchase of not to exceed one for replacement only: Provided further, That appropriations hereunder shall be available to conduct marketing research: Provided further, That appropriations hereunder shall be available pursuant to 7 U.S.C. 2250 for the construction, alteration, and repair of buildings and improvements, but unless otherwise provided, the cost of constructing any one building shall not exceed $250,000, except for headhouses or greenhouses which shall each be limited to $1,000,000, and except for ten buildings to be constructed or improved at a cost not to exceed $500,000 each, and the cost of altering any one building during the fiscal year shall not exceed 10 per centum of the current replacement value of the building or $250,000, whichever is greater: Provided further, That the limitations on alterations contained in this Act shall not apply to modernization or replacement of existing facilities at Beltsville, Maryland: Provided further, That the foregoing limitations shall not apply to replacement of buildings needed to carry out the Act of April 24, 1948 (21 U.S.C. 113a): Provided further, That the foregoing limitations shall
1 not apply to the purchase of land [or the construction of facilities as may be necessary for the relocation of the United States Horticultural Crops Research Laboratory at Fresno to Parlier, California, and the relocation of the laboratories at Behoust, France and Rome, Italy to Montpellier, France, including the sale or exchange at fair market value of existing land and facilities at Fresno, California and Behoust, France; and the Agricultural Research Service may lease such existing land and facilities from the purchasers until completion of the replacement facilities and the foregoing
2 limitations shall not apply to the purchase of land at Weslaco, Texas] at Parlier, California and Grand Forks, North Dakota: Provided further, That not to exceed $190,000 of this appropriation may be transferred to and merged with the appropriation for the Office of the Assistant Secretary for Science and Education for the scientific review of international issues involving agricultural chemicals and food additives: Provided further, That funds may be received from any State, other political subdivision, organization, or individual for the purpose of establishing or operating any research facility or research project of the Agricultural Research Service, as authorized by law.

Special fund: To provide for additional labor, subprofessional, and junior scientific help to be employed under contracts and cooperative agreements to strengthen the work at Federal research installations in the field, $2,500,000.

The first change deletes language providing for the purchase of land or the construction of facilities for the relocation of the Horticultural Crop and Water Management Research Laboratory from Fresno to Parlier, California; relocation of the European Biocontrol Laboratory facilities to Montpellier, France; and the purchase of land at Weslaco, Texas. These provisions will not be required in the FY 1995 language since these lands have been acquired and planning for the construction of these new facilities is underway.

The second change provides authorization for the purchase of land at (1) Parlier, California, for an additional 22-acre parcel to be used as a growout site to improve the quality of seed for the Nation's germplasm base. Seed longevity in storage depends upon the quality of seed entering storage. Seed quality can be improved by growing the seed at this particular site which affords the best environmental growing conditions. This land was not available for sale when the 104-acre parcel for the new laboratory was acquired in FY 1992; and (2) Grand Forks, North Dakota, for use as parking facilities of volunteers participating in human nutrition studies at the Grand Forks Human Nutrition Center. The lack of parking jeopardizes the safety of these volunteers especially during severe winter weather.

## AGRICULTURAL RESEARCH SERVICE

| | |
|---|---|
| Appropriation Act, 1994 | $694,969,000 |
| Budget Estimate, 1995 | 701,218,000 |
| Increase in Appropriation | +6,249,000 |

| | | |
|---|---|---|
| Adjustments in 1994: | | |
| Appropriation Act, 1994 | $694,969,000 | |
| Transfer to Human Nutrition Information Service | -11,068,000 a/ | |
| Adjusted base for 1994 | | $683,901,000 |
| Budget Estimate, 1994 | | 701,218,000 |
| Increase over adjusted 1994 | | +17,317,000 |

a/ Permanent transfer to Human Nutrition Information Service in accordance with Reorganization Plan No. 2 of 1953 7 U.S.C. 2201, and USDA Secretary's Memorandum dated September 30, 1993, No. 1020-39, Section 2b.

### SUMMARY OF INCREASES AND DECREASES
(on basis of adjusted appropriation)

| Projects | 1994 Estimated | Pay Cost | Program Changes | Program Redirections | 1995 Estimated |
|---|---|---|---|---|---|
| 1. Research on soil, water, and air sciences... | $ 84,882,000 | $ +546,000 | $-1,126,000 | -$993,000 | $ 83,309,000 |
| 2. Research on plant sciences.... | 247,775,000 | +1,592,000 | +1,831,000 | -2,516,000 | 248,682,000 |
| 3. Research on animal sciences..... | 115,513,000 | +742,000 | -4,225,000 | -390,000 | 111,640,000 |
| 4. Research on commodity conversation and delivery.. | 138,267,000 | +888,000 | +13,692,000 | +3,899,000 | 156,746,000 |
| 5. Human nutrition research.... | 50,713,000 | +188,000 | +3,575,000 | - - | 54,476,000 |
| 6. Integration of agricultural systems..... | 28,460,000 | +183,000 | -569,000 | - - | 28,074,000 |
| 7. Repair and maintenance of facilities.. | 17,362,000 | - - | - - | - - | 17,362,000 |
| 8. Contingencies.. | 929,000 | - - | - - | - - | 929,000 |
| Total Available.. | 683,901,000 | +4,139,000 | +13,178,000 | - - | 701,218,000 |

Project Statement - Current Law
(on basis of adjusted appropriation)

| PROJECT | 1993 Actual | | 1994 Estimated | | Increase or Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | AMOUNT | Staff Years | AMOUNT | Staff Years | | AMOUNT | Staff Years |
| 1. Research on soil, water, and air sciences.... | $83,185,814 | 937 | $84,882,000 | 933 | -$1,573,000(1) | $83,309,000 | 915 |
| 2. Research on plant sciences.... | 244,074,256 | 3,350 | 247,775,000 | 3,331 | +907,000(2) | 248,682,000 | 3,269 |
| 3. Research on animal sciences.... | 108,898,741 | 1,584 | 115,513,000 | 1,576 | -3,873,000(3) | 111,640,000 | 1,546 |
| 4. Research on commodity conversation and delivery | 128,042,799 | 1,656 | 138,267,000 | 1,646 | +18,479,000(4) | 156,746,000 | 1,616 |
| 5. Human nutrition research..... | 51,183,455 | 224 | 50,713,000 | 223 | +3,763,000(5) | 54,476,000 | 219 |
| 6. Integration of agricultural systems..... | 25,652,227 | 202 | 28,460,000 | 201 | -386,000(6) | 28,074,000 | 197 |
| 7. Repair and maintenance of facilities..... | 17,064,876 | | 17,362,000 | | - - | 17,362,000 | |
| Contingencies | a/ | | 929,000 | | - - | 929,000 | |
| Unobligated balance..... | 2,564,832 | | - - | - - | - - | - - | |
| Total, available or estimate.... | 660,667,000 | 7,953 | 683,901,000 | 7,910 | +17,317,000 | 701,218,000 | 7,762 |
| Transfer to the Office of the Secretary..... | 212,000 | | - - | | | | |
| Transfer to the Human Nutrition Information Service. | - - | | 11,068,000 | | | | |
| Total Appropriation.. | 660,879,000 | 7,953 | 694,969,000 | b/ | | | |

a/ Obligations incurred under the Research Contingency Fund in 1993 amount to $898,523 and are reflected in the program activities listed above.
b/ A request has been submitted to the Congress to rescind $16,233,000 of the total 1994 appropriation.

AGRICULTURAL RESEARCH SERVICE

Explanation of Program

Under the Agriculture, Rural Development and Related Agencies Appropriations, ARS performs research to:

* Manage and enhance the Nation's soil, water, and atmospheric resources to optimize agricultural productivity and environmental quality. Research is conducted to develop the technology for assessing and predicting long-term changes in the quantity and quality of the Nation's soil, water, and atmospheric resources; to provide the technology needed for improving, protecting, and restoring the productive capacity of agricultural soils; to develop improved soil and water management systems and practices; and to optimize interactions of climate with soil, water, crops, and their management and through better management, enhance the environment.

* Maintain and increase the productivity and quality of crop plants. Research is conducted on the: collection and preservation of plant genetic resources; use and modification of these genetic resources to develop new improved high-quality, pest-resistant, stress-tolerant crop varieties to satisfy domestic and export needs; production practices and crop management systems which increase production efficiency and help protect the environment; methods of biological control and other pest management practices to reduce crop losses from insects, diseases, nematodes, and weeds; biology of economic plants and major pests to better understand the biochemistry and function of living organisms; mapping of important genes of major crop plants; and new and alternate high-value crops particularly for small farm operations.

* Increase the productivity of animals and the quality of animal products. Research is conducted to increase the genetic capacity of animals for production; to improve the efficiency of reproduction and reproduction-related biological processes; to improve animal nutrition and feed efficiency to increase productivity and product quality; to develop ways to prevent or control losses from diseases, parasites, and toxicants and other substances that limit animal performance and reduce the quality of animal products; to develop means for controlling insects, ticks, and mites that affect animals and man; and to devise means for improving and integrating procedures and facilities for production and transport of animals to increase productivity, reduce costs, and enhance animal well-being.

* Achieve maximum use of agricultural commodities in domestic markets and export. Research is conducted to maintain and improve the economic viability and competitiveness of U.S. food, feed and industrial products and commodities in the current global market by: developing the knowledge and means to improve quality and performance characteristics, to meet consumer safety criteria, and eliminate trade barriers; by providing the knowledge and technologies needed by action and regulatory agencies to assure quality and safety; by devising economic, environmentally benign, safe processing concepts; and by expanding domestic and export market opportunities through the development of value-added food and nonfood products.

* Promote optimum human health and well-being through improved nutrition and family resource management. Research is conducted to define the cellular and molecular functions, requirements, and interactions of nutrients for humans at all stages of the life cycle; to explore genetic diversity and individual variation in nutrient needs; to develop methods for determining the nutrient content of agricultural commodities and processed foods

as eaten, and establish the bioavailability of their nutrients; and to improve the nutritional status of humans and the well-being of families by making techniques available for assessing the nutrient intake and nutritional status of the population.

* Integrate knowledge of agricultural production, processing, and marketing into management systems which optimize utilization of users' resources and net returns. Research is conducted to develop integrated systems for efficiently producing, processing, and marketing agricultural products; and to develop alternative production systems, adapted to users with widely varying resources, which are economically and environmentally sustainable.

Also, ARS expends funds for:

* Repair and maintenance of facilities. Funds are used to repair and maintain ARS facilities to provide safe, energy-efficient and functional workspace for in-house research. ARS is committed to adequately fund routine maintenance and repair to assure that all facilities are properly maintained. Each location also allocates program funds as appropriate, to perform the most urgent repairs or maintenance of facilities.

* Contingencies. These funds, established by Congress in fiscal year 1962, provide for contingency financing of urgent items requiring immediate research action, including research demanded by emergency situations, unforeseeable research needed because of unexpected scientific breakthroughs, damaged but urgently needed facilities, and other related needs where time is of the essence.

* Construction of facilities. These funds complement the funding appropriated under the Buildings and Facilities account to accelerate the restoration and upgrading of research laboratories and other facilities.

## JUSTIFICATION OF INCREASES AND DECREASES

The Administration proposes a net increase of $17.317 million for programs of the Agricultural Research Service. This budget reflects a number of important changes, including efficiencies to be gained through the streamlining of research and extension activities within USDA and the continuing need to focus limited resources on the highest priority problems faced by the agricultural sector. Streamlining of the Agricultural Research Service includes the closure of lower priority laboratory locations. These actions will enable the Agency to redirect funds from administrative overhead into bench level research directed at solving farm and ranch problems. Overhead rates at remaining laboratories will be lowered as a result of operating facilities at higher levels of occupancy. Further, the planned consolidation of administrative functions for research, extension and economics programs will result in staff year savings. Governmentwide goals to reduce positions at grades GS-14 and above, to reduce the supervisory ratio and to make proportionately larger reductions at headquarters are reflected in the budget proposed for ARS.

(1) A net decrease of $1,573,000 for research on Soil, Water, and Air Sciences consisting of:

(a) An increase of $546,000 for anticipated pay costs.

(b) An increase of $934,000 which reflects a 2.6% increase in non-salary costs.

(c) An increase of $176,000 for anticipated SES lump-sum costs.

(d) A decrease of $929,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $929,000.

Nature of Change. In order to achieve these savings, ARS will reduce discretionary expenses by $929,000 in FY 1995 in areas such as travel, printing, communications, supplies and materials, contracting, consultants, and extramural activities.

(e) A decrease of $2,307,000 which reflects savings from the closeout of research laboratories and reductions in lower priority research projects.

Need for Change. Streamlining the USDA research activities will result in savings which will be directed to achieve critical research initiatives. The budget recommendations include the elimination of selected research locations and the termination and reduction of specific lines of ongoing research. More effective utilization of remaining laboratories will result in lower overhead costs. Specific locations and research projects were selected to provide additional resources necessary to carry out more critical research impacting food safety, methyl bromide alternatives and pesticide reduction.

Nature of Change. Research at the following locations is proposed for termination:

Fairbanks, Alaska ($729,500)

The primary thrust of the program has been the development of a grain cropping system for Alaska. That task was successfully completed, but market conditions have prevented the development of a significant grain

farming enterprise. More recently, research has shifted to the measurement of greenhouse gases, for which the location is poorly suited in terms of the specialization of the personnel, and work on frozen soils. Frozen soil work is carried on elsewhere in Minnesota and Washington, making the program in Fairbanks of low priority.

Brawley, California ($306,000)

Brawley serves primarily as a staging area for field work in soil and water management, entomology, and crop production directed from other ARS laboratories such as Riverside, Fresno, and Salinas, California; and Phoenix, Arizona. The facilities duplicate those in the Imperial Valley of the University of California, and much of the work is directed at unique problems in one section of California. The research is of relatively low priority given other ARS priorities and existing fiscal constraints. To the extent desirable, field work can be continued in the Valley from remote locations without maintaining the local facilities.

El Reno, Oklahoma ($299,700)

The mission of the Grazinglands Research Facility at El Reno is to increase the efficient production of lean red meat from forages by increasing the quantity and quality of forages. A soil/forage/animal systems research approach to meat production is the main research emphasis at El Reno. In addition, facilities are old and badly in need of upgrading/modernization, especially the feedlots, fences, other infrastructure, etc. Similar research is being conducted by ARS at Clay Center, Nebraska and Miles City, Montana. The research programs at these locations are better focused, more productive and can meet the research needs of clients located in different ecological production areas of the United States.

Sidney, Montana ($741,600)

The mission of the location is to develop sustainable farming systems for the Northern Great Plains, including dryland and irrigated crop production. As a satellite from Bozeman, the unit is actively working on biocontrol of leafy spurge and other range weeds. The laboratory has made significant contributions to water conservation, erosion control, and crop production over the years. However, similar work is carried on at Bozeman, Montana; Mandan, North Dakota; Cheyenne, Wyoming; and Akron, Colorado. The Agency can serve the needs of the Northern Plains effectively from these remaining four locations.

Headquarters and Area Management Reduction ($230,200)

In addition to terminations in direct research projects proposed herein, the Agency is proposing savings through a reduction in administrative and program management support. Reductions will be taken at the Washington, D.C. Headquarters and Area management offices.

(f) An increase of $1,000,000 for research on Co-Composting Wastes.

Need for Change. Increasing concentrations of people in cities and animals in feedlots, and public concern regarding hazards posed by municipal, industrial and agricultural wastes have resulted in dramatic increases in the costs of waste disposal. In 1980, costs for disposal of wastes at landfills in the U.S. averaged about $10 per ton. By 1990, they had risen to nearly $40 per ton. By the year 2000, they are expected to exceed $100 per ton in many areas.

Composting has been advocated by the Environmental Protection Agency (EPA) as a safe and beneficial practice for converting sewage sludges to beneficial soil conditioners and biofertilizers. Essential plant nutrients and potentially beneficial soil amendments may be obtained from municipal solid wastes, coal-fired power plant wastes and manures from animal production, each of which is generated at rates of over 100 million tons per year. However, when applied directly to soils, or even as single component composts, these materials are often so soluble, concentrated or reactive that they contaminate the water, air, or soil. Some are too wet or too dry, or too dense or too fluffy, to be applied with existing equipment or to stay in place when applied to the soil surface where they would provide the most benefit.

Co-composting, or combining and composting wastes from different sources appears to have potential for making valuable and usable resources from these wastes. However, guidelines for co-composting these wastes to overcome objectionable characteristics are not available.

Nature of Change. Research will be expanded in the following areas:

- o Develop guidelines for co-composting and use of municipal, industrial and agricultural wastes to:

  Stabilize wastes so they will not contaminate the air or ground water during composting and storage, and

  Maintain short and long-term solubilities of elements in compost-soil mixtures in ranges which enhance the environment, productive potential of soil, and quality of crops.

- o Develop means for incorporating and growing beneficial organisms in composts to help control insects, diseases, nutrient deficiencies, and other stresses which cause crop failure.

- o Determine the physical, biological, and socio-economic factors essential to changing these wastes into products of dependable quality which will be profitable for manufacturers and users.

- o Develop specific guidelines for on-farm composting which will enable farmers to use municipal and industrial wastes and produce co-composts for both their own use and for sale.

(g) A redirection of $993,000 for research on higher priority projects.

Need for Change. ARS' research priorities are continually examined to ensure that they meet the needs of producers and consumers. Areas of increased importance which require additional resources through redirection are: food safety, methyl bromide alternatives, and pesticide reduction.

Nature of Change. The redirection of resources between major activities is as follows:

| From Soil, Water, and Air Sciences: | To Plant Sciences: |
|---|---|
| Potato production systems, Prosser, WA (-$588,000) | Sustainable cropping systems for the Intermountain area, Prosser, WA (+$588,000) |
| Plant-soil-microbe interactions, Beltsville, MD (-$149,000) | Soil management for control of pathogens, Beltsville, MD (+$149,000) |

| | |
|---|---|
| Residue decomposition, Beltsville, MD (-$122,000) | Soil management for control of pathogens, Beltsville, MD (+$122,000) |
| Soil mycorrhizal fungi, Corvallis, OR (-$134,000) | Soil management for control of pathogens, Corvallis, OR (+$134,000) |

(2) A net increase of $907,000 for research on Plant Sciences consisting of:

(a) An increase of $1,592,000 for anticipated pay costs.

(b) An increase of $2,725,000 which reflects a 2.6% increase in non-salary costs.

(c) An increase of $513,000 for anticipated SES lump-sum costs.

(d) A decrease of $2,712,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $2,712,000.

Nature of Change. In order to achieve these savings, ARS will reduce discretionary expenses by $2,712,000 in FY 1995 in areas such as travel, printing, communications, supplies and materials, contracting, consultants, and extramural activities.

(e) A decrease of $9,695,000 which reflects savings from the close-out of research laboratories and reductions in lower priority research projects.

Need for Change. Streamlining the USDA research activities will result in savings which will be directed to achieve critical research initiatives. The budget recommendations include the elimination of selected research locations and the termination and reduction of specific lines of ongoing research. More effective utilization of remaining laboratories will result in lower overhead costs. Specific locations and research projects were selected to provide additional resources necessary to carry out more critical research impacting food safety, methyl bromide alternatives and pesticide reduction.

Nature of Change. Research at the following locations is proposed for termination:

Oxford, North Carolina ($1,766,800)

Tobacco funds at Oxford are used for a variety of research projects to include breeding of improved tobacco varieties, molecular and biochemical control of nitrogen assimilation in tobacco and other plants, and control of insect and disease pests. While this research has been meaningful and worthwhile, there now is a need to terminate tobacco research at this location. Many of the original research objectives have been accomplished, production problems of the tobacco industry are now much less acute than they were previously, and the tobacco growers are diversifying their operations to other crops. Much of the research now being conducted by ARS scientists relate to local tobacco production problems which can be considered as the responsibility of individual States.

Lexington, Kentucky ($1,548,500)

Current funds at Lexington are divided between an inhouse research project on use of the tobacco plant to study carbon and nitrogen metabolism and a cooperative project with the University of Kentucky. Funds provided to the University of Kentucky are used to support a variety of research projects to include breeding of improved tobacco varieties, pest resistance, cultural methods, and chemical composition of the tobacco plant. While this research has been productive and useful in the past, it now can be terminated. Most of the original research objectives have now been accomplished and there are other production and marketing problems with other important economic crops that have a higher national priority. Much of the research now being conducted by the University of Kentucky with Federal funds is directed toward solving tobacco production problems of the State, and as such, should be funded with State funds.

In addition, a small program in forages at Lexington would be eliminated. The forage program is narrowly focused on local problems and can be eliminated.

Chatsworth, New Jersey ($514,400)

Research at Chatsworth is on breeding of blueberries, and on improved methods of disease control in blueberries and cranberries. Excellent progress has been made and both the cranberry and blueberry industries are thriving and expanding. To a large degree, the original objective of this research has been accomplished. ARS has introduced 51 new improved varieties of high bush blueberries over the last 50 years and these are mainly tolerant of major disease problems. Largely through ARS research, disease problems of cranberries are now greatly reduced. Since the cranberry and blueberry industries are thriving and these crops are major agricultural industries in the State of New Jersey, it is appropriate for the industries themselves and the State to continue whatever research may be required in the future. Some blueberry breeding will continue at Beltsville, Maryland, and the National Blueberry Repository will continue to be maintained at Corvallis, Oregon.

Delaware, Ohio ($263,400)

Current research is on the development of more accurate ways to screen seedling trees for resistance to disease pests, potential use of biological methods of control of the Dutch elm disease, and improved methods of propagation of improved elm tree varieties. This research is largely devoted to research on the American elm. The research has been worthwhile and beneficial but there now is a need to discontinue this research. ARS has released seven new improved elm varieties with resistance to the Dutch elm disease and nurserymen are successful in propagating these new varieties. Furthermore, scientists at the National Arboretum, Washington, D.C., have a very active tree breeding program and can continue to evaluate existing elm selections for introduction to the nursery industry if there is a need to do so. The attempt to find a biological means of control for the Dutch elm disease has not been successful and is not considered to be feasible at this time.

Beltsville, Maryland ($397,600)

Tobacco research at Beltsville involves using the plant as a model plant system for research on regulation and expression of genes involved in accumulation of seed oil and protein in economic crops and for development of improved tissue culture technologies. This research has been useful but can now be terminated. Major advances have been made in genetic

engineering and tissue culture technologies during the last few years and there are now other plants such as soybean, wheat, rice, and corn that can be used as crop model systems. It is more appropriate to use these other crops for basic research studies as new genetic materials derived from the research programs can be used directly to enhance yield, composition, nutritional quality, and other important plant characteristics.

El Reno, Oklahoma ($444,800)

The mission of the Grazinglands Research Facility at El Reno is to increase the efficient production of lean red meat from forages by increasing the quantity and quality of forages. A soil/forage/animal systems research approach to meat production is the main research emphasis at El Reno. In addition, facilities are old and badly in need of upgrading/modernization, especially the feedlots, fences, other infrastructure, etc. Similar research is being conducted by ARS at Clay Center, Nebraska and Miles City, Montana. The research programs at these locations are better focused, more productive and can meet the research needs of clients located in different ecological production areas of the United States.

East Grand Forks, Minnesota ($960,300)

The Potato Research Laboratory at East Grand Forks is a partner in a Federal-State-private industry collaboration to improve quality and reduce postharvest losses for the farmer, handler and processor. The laboratory has successfully resolved postharvest handling and storage issues by defining the relevant variables and developing an expert system to guide producers and processors in storage loss prevention. Current research emphasis is on variety evaluation for end use quality, and identification of biorational means for controlling sprouting. The latter research is also addressed at the Agency's Northern Crop Science Laboratory in Fargo, North Dakota, where there is the critical mass of scientific disciplines lacking at the East Grand Forks location. Operating funds at this location are minimal and the Agency does not have sufficient resources to provide additional support, especially when issues of newly emerging potato diseases are seriously impacting farmer returns and requiring Agency attention.

Houma, Louisiana ($1,382,900)

Research in Houma is exclusively on the breeding and culture of sugarcane. Emphasis is on the development of new improved varieties, the use of genetic engineering procedures to introduce new genes or genetic material into existing varieties, control of weed populations, and improved methods of insect and disease control. This research has been very successful and the yield of sugar/acre has increased over the years through use of ARS varieties. Over the last 13 years, ARS has released 30 new varieties, some of which have been jointly released with Louisiana State University. Inasmuch as all the research now conducted at this ARS location is exclusively to benefit the Louisiana sugarcane industry, it is appropriate that the State assume a larger role in providing for the research needs of the industry.

Suffolk, Virginia ($666,700)

The mission at Suffolk is to develop peanut germplasm and cultivars with desirable agronomic and end use characteristics, to devise effective control strategies for foliar diseases, and develop optimum peanut and corn production systems. Research emphasis is on virginia-type peanuts grown almost exclusively in Virginia and North Carolina is part of a

Federal-State collaborative peanut research effort in these States. Though virginia-type peanuts command a strong position in the European market, domestic markets for snack nut products have plateaued and southeastern runner-type peanuts are preferred for peanut butter products. Both markets are affected by consumer desire to reduce fat intake. Closure of this location would create an opportunity for commercial entry into peanut cultivar development and permit the Agency to concentrate efforts on its postharvest quality program for virginia-type peanuts at Raleigh, North Carolina.

Brownwood, Texas ($473,100)

The objective of the research at Brownwood is to evaluate pecan germplasm and introduce improved varieties. In recent years, most of the new experimental plantings have been cooperatively established with Texas A&M University at College Station. This research has been very productive and ARS has introduced 18 new improved varieties which are now widely grown throughout the pecan belt. In view of the need to address other agricultural problems of high national priority, there is now a need to terminate this research. The new ARS varieties are widely grown and there is reduced need for this research. About 40 percent of the U.S. pecan crop is produced from native seedling trees. This figure has not changed much over the years. With the availability of existing improved varieties and the lack of expansion of plantings of improved varieties in the U.S., the future need for additional improved varieties is not considered of high national priority. The collection of unique pecan germplasm now located at Brownwood will continue to be maintained.

Jackson, Tennessee ($166,900)

Current research objectives at Jackson are to develop enhanced soybean germplasm with resistance to the cyst nematode and to study the influence of resistant germplasm on the development of new pathogenic races of the nematode. This research has been very successful but there is now a need to terminate this research at this location. It is more appropriate to conduct the research at Stoneville, Mississippi, as an objective of an existing research program on breeding improved soybean varieties. Consolidation of the research at Stoneville would help strengthen the existing ARS-Mississippi cooperative program at Stoneville where there is a large number of scientists and the opportunity for interdisciplinary research.

Miami, Florida ($165,500)

The Subtropical Horticultural Research Laboratory in Miami has two distinct programs -- acquisition, maintenance, and distribution of subtropical and tropical germplasm of agricultural importance, and development of technologies to maintain quality and eliminate quarantine barriers for subtropical and tropical fruits and vegetables. Operating funds at this location no longer meet Agency standards and postharvest research has been severely limited due to loss of tropical and subtropical fruit orchards in Hurricane Andrew. Reestablishment of fruit production in this area in the long-term is questionable. Facility disruption by the hurricane and unrelenting urban encroachment dictate consolidation of these activities at other relevant Agency locations. Transfer of the germplasm to Agency facilities at Mayaquez, Puerto Rico, and Hilo, Hawaii, will consolidate appropriate conservation programs, increase management efficiency and eliminate possibility of frost damage to temperature sensitive materials. Similarly, consolidation of the postharvest programs at Orlando and Gainesville, Florida, will increase the opportunity for the Agency to achieve the disciplinary diversity and critical mass needed to develop alternatives to the postharvest fumigation use of methyl bromide

and improved shelf life of U.S. exports.

Headquarters and Area Management Reduction ($944,100)

In addition to terminations in direct research projects proposed herein, the Agency is proposing savings through a reduction in administrative and program management support. Reductions will be taken at the Washington, D.C. Headquarters and Area management offices.

(f) An increase of $7,500,000 for research on Pesticide Reduction in Fruits, Vegetables, and Other Crop Production.

Need for Change. The public is increasingly concerned about health and environmental hazards that may result from the use of chemical pesticides for controlling insects and other pests. Food safety concerns of industry and government agencies result in banning or placing rigid use restrictions on an increasing number of pesticides because of perceived or potential hazards. Additionally, insects continue to develop resistance to insecticides, which further limits the availability of suitable insecticides. And, industry is reluctant to make the investments necessary to discover, develop, and demonstrate safety of new pesticides because of the time, risks, and high costs involved. Thus, the need to implement alternative pest control strategies is urgent.

The underlying foundation of most current alternative pest control strategies is integrated pest management programs (IPM) which are carried out on a voluntary basis by farmers using a combination of different measures such as cultural practices, growing resistant varieties, using biological control agents, etc. The overall principle of IPM is reliance on natural control factors to the maximum extent possible. However, in many crop production systems the need to apply pesticides throughout the cropping season to control key pests lessens the impact of natural controls. The outcome is that, without areawide control of key pests, the ultimate dependence of individual growers on pesticides as the major component in the integrated system is not reduced. Furthermore, IPM practiced on a field-to-field or farm-to-farm basis does little to prevent or control pest population buildup in surrounding areas. Most insect pests that require widespread use of pesticides are highly mobile and can readily invade low-population areas from nearby high-density zones.

After several decades of intensive efforts to develop new technologies and strategies for controlling agricultural pests, scientists have made outstanding progress in a number of areas that offer opportunities for achieving pest control at low cost and in an environmentally sound manner. For example:

- A wide range of insect attractants have been discovered that permit the detection of insects existing at very low population levels; some of the attractants are useful for control.

- Insect geneticists and entomologists have found new genetic mechanisms that are more effective in inhibiting reproduction than the sterility technique which was previously demonstrated to be effective with certain insect pests.

- Biologists investigating the behavior of biological agents have obtained basic information that indicates the augmentation of natural biological agents offers much better opportunities for regulating and perhaps even eradicating insect pest populations than had previously been realized.

- The remarkable progress that insect-rearing specialists have made in the mass production of insects provides greater opportunities for resolving insect pest problems by the rearing and mass release of biological agents, including the development of biological insecticides having a high degree of pest specificity.

Thus, there is a vast store of new information and technology ready to be exploited in order to deal with agricultural pest problems in a more rational and effective manner than has been achieved in the past with reliance on chemical pesticides. The basic strategy that should be employed is one designed to prevent the pest population from reaching damaging levels rather than treatment of a problem after it develops. However, relatively little of the new technology is now being used in this manner. The primary reason is that neither scientists nor pest management organizations have had the resources to adequately transfer the technology. Before farmers or pest management agencies can adopt new pest control procedures for practical application, it will be necessary for research organizations to clearly demonstrate and document that the new technology is feasible, effective, practical, and safe under field conditions.

Largely because of insect mobility, it is not possible to demonstrate the utility of promising new technologies simply by conducting trials on small individual farms of only a few hundred acres when the biological agents used or the pests to be controlled are capable of moving 5, 10, or even 100 miles within a few days or during the growing season. Therefore, depending on the nature of the pest and the control techniques under development, it may be necessary to conduct trials in agricultural regions encompassing thousands of acres of crops or hundreds of square miles of pest habitats. A total systems approach is needed.

There is every reason to believe that technology can be made available to deal with many of the major pest problems by undertaking preventive measures in an organized and coordinated manner and on an area-wide basis.

Nature of Change. Large-scale pilot tests will be undertaken in fruits, vegetables, and other crop production areas in order to properly evaluate and further develop promising pest control technologies and systems such as releasing specific biological agents, using different genetic mechanisms, evaluating the effectiveness of certain attractants, using resistant varieties, and adopting specific cultural practices. Critical insect pests include the Colorado potato beetle, sweetpotato whitefly, diamondback moth, codling moth, phylloxera, aphids, mites, stinkbugs, cucumber beetles, scale insects, loopers, weevils, leaf miners, pear psylla, fall armyworm, corn rootworm, pink bollworm, tobacco budworm, and others. This initiative will address pest species that are responsible for 80 percent of the insecticides and other pesticides currently used in fruits, vegetables, and other crop production.

- Areawide Systems Approach to Pesticide Reduction and Alternative Pest Control. Large scale tests to prevent and control pests in crop production by areawide management will be initiated. The research will: a) implement the best combinations of current technology, b) identify technology gaps; c) obtain basic ecological data including the role of native biocontrol agents; d) develop procedures for the mass production of specific biological agents; e) produce the biological agents needed for specific experiments; f) execute the trial programs; g) monitor the results; and h) demonstrate cost-effective, efficacious alternative pest control systems for commercial adoption by producers.

An interagency USDA working group for IPM, in consultation with the EPA and FDA, will identify and prioritize food residue and environmental risk problems for guiding ARS' selection of the most critical and technically feasible research programs.

The total cost for each program will likely range from $2 to $4 million per year over a period of about five years. Several tests on different pest species at different locations will be conducted simultaneously. The funds appropriated will be revolving in nature. After completing one program, the funds will become available for some other high-priority pilot test. The program will be executed by existing research laboratories and supervised by the existing scientific staff. They will be carried out with the cooperation of appropriate Federal and State pest management agencies, and with the involvement, cooperation, and support of the private sector users of the technologies developed. The public will be the ultimate beneficiary of the program through reduced pesticide use and improved food and environmental safety and quality.

(g) An increase of $1,000,000 for research on the Agricultural Biodiversity of Wetlands.

Need for Change. Preservation of the nation's agrobiodiversity is essential to have the genetic resources available to meet the challenges of our production systems. Wetland ecosystems form an integral part of most agricultural lands and contribute significantly to their biodiversity. The interrelationships between the flora and fauna found on wetlands is not yet adequately understood or appreciated. This is particularly true of the impacts of management on the vast array of biota that inhabit the complex landscapes of these ecosystems. The impacts of agricultural management practices, such as the application of chemicals, the use of biocontrol activities, cultivation, and the selection of plant germplasm used in cropping systems on the wetlands is not known.

In addition, the Convention on Biological Diversity charges all member countries to increase their capabilities in the areas of conservation and sustainable use. New efforts to develop effective conservation protocols for other life forms, such as those found in wetlands is needed. It is also critical that sustainability be a major criterion in the management of agricultural lands and associated wetlands.

Nature of Change. Research will be conducted on the impacts of agriculture and forestry on the biodiversity of wetlands. Initially, the research will focus on the Mississippi Delta and the Coastal Plains regions. The research will also contribute to the National Genetic Resources Program database with a variety of life forms associated with wetland ecosystems resources. The nation's wetlands contain the highest proportion of biological diversity associated with agriculture. The research will address the following questions:

- What are the existing impacts of agriculture and forestry on the biodiversity of wetlands?
- How can the adverse impacts of agriculture and forestry on the biodiversity of wetlands be minimized?
- How can species and genetic diversity of wetland ecosystems contribute to the sustainability of agriculture and forestry?

(h) An increase of $2,500,000 for agricultural research in support of United States-Israel Binational Agricultural Research and Development.

Need for Change. An agreement between the U.S. and Israel governments to

establish the United States-Israel Binational Agricultural Research and Development Fund (BARD) was signed in 1977. The purpose was to foster greater cooperation between the two scientific communities for their mutual benefit in advancing agriculture. An initial endowment fund of $80 million was originally established by equal contributions from Israel and the U.S. Additional funds ($15 million from each country) were provided to the endowment in FY 1985. However, a reduction in interest rates and an increase in the cost of research has greatly impeded the ability of BARD to adequately meet the needs of the research community.

Nature of Change. The additional funding will be matched by the Israel government and support all aspects of agricultural research within the mission of ARS. Specifically, the funds requested here will not be exclusively available to plant sciences but to all ARS program activities (i.e., soil, water, and air sciences; animal sciences; commodity conversion and delivery; human nutrition; and integration of agricultural systems). These funds will supplement the interest provided by the initial BARD endowment and made available for grants to joint U.S.-Israeli agricultural research projects.

(i) A redirection of $2,516,000 for research on higher priority projects.

Need for Change. ARS' research priorities are continually examined to ensure that they meet the needs of producers and consumers. Areas of increased importance which require additional resources through redirection are: food safety, methyl bromide alternatives, and pesticide reduction.

Nature of Change. The redirection of resources between major activities is as follows:

| From Plant Sciences: | To Commodity Conversion and Delivery: |
|---|---|
| Transgenic introduction of novel compounds for insect control, Albany, CA (-$577,000) | Biochemical basis for resistance to aflatoxin production in tree nuts, Albany, CA (+$577,000) |
| Genes associated with flower development, Athens, GA (-$195,000) | Pathogen reduction in poultry, Athens, GA (+$195,000) |
| Pecan research, Athens, GA (-$242,000) | Fusarium mycotoxin formation/metabolites, Athens, GA (+$242,000) |
| Production of peptides, Peoria, IL (-$415,000) | Biochemical basis for mycotoxin resistance in corn, Peoria, IL (+$415,000) |
| Production of value-added seeds, Peoria, IL (-$274,000) | Biochemical basis for mycotoxin resistance in corn, Peoria, IL (+$274,000) |
| Biochemical bases-insect behavior, Albany, CA (-$404,000) | Methodology to detect and control chemical residues, Albany, CA (+$404,000) |
| Improved nutrition quality of legume seed protein, Ithaca, NY (-$316,000) | Control of translocation of toxic mineral levels in crops, Ithaca, NY (+$316,000) |

| | |
|---|---|
| Limitations to sucrose accumulation in sugarcane, Weslaco, TX (-$325,000) | Alternative postharvest quarantine treatments for fruits/vegetables, Weslaco, TX (+$325,000) |
| Detection and control strategies of citrus diseases, Orlando, FL (-$250,000) | Alternative postharvest technologies to meet export requirements, Orlando, FL (+$250,000) |
| Citrus/avocado nutrition, Pasadena, CA (-$287,000) | Alternative quarantine treatments for tree nuts, dried/fresh fruits, Fresno, CA (+$287,000) |
| Bioregulation of plant responses, Pasadena, CA (-$159,000) | Alternative quarantine treatments for tree nuts, dried/fresh fruits, Fresno, CA (+$159,000) |
| Experimental bioassay growth systems, Pasadena, CA (-$65,000) | Alternative quarantine treatments for tree nuts, dried/fresh fruits, Fresno, CA (+$65,000) |
| From Soil, Water, and Air Sciences: | To Plant Sciences: |
| Potato production systems, Prosser, WA (-$588,000) | Sustainable cropping systems for the Intermountain area, Prosser, WA (+$588,000) |
| Plant-soil-microbe interactions, Beltsville, MD (-$149,000) | Soil management for control of pathogens, Beltsville, MD (+$149,000) |
| Residue decomposition, Beltsville, MD (-$122,000) | Soil management for control of pathogens, Beltsville, MD (+$122,000) |
| Soil mycorrhizal fungi, Corvallis, OR (-$134,000) | Soil management for control of pathogens, Corvallis, OR (+$134,000) |

(3) A net decrease of $3,873,000 for research on Animal Sciences consisting of:

(a) An increase of $742,000 for anticipated pay costs.

(b) An increase of $1,270,000 which reflects a 2.6% increase in non-salary costs.

(c) An increase of $239,000 for anticipated SES lump-sum costs.

(d) A decrease of $1,264,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $1,264,000.

Nature of Change. In order to achieve these savings, ARS will reduce discretionary expenses by $1,264,000 in FY 1995 in areas such as travel, printing, communications, supplies and materials, contracting, consultants, and extramural activities.

(e) A decrease of $4,470,000 which reflects savings from the closeout of research laboratories and reductions in lower priority research projects.

Need for Change. Streamlining the USDA research activities will result in savings which will be directed to achieve critical research initiatives. The budget recommendations include the elimination of selected research locations and the termination and reduction of specific lines of ongoing research. More effective utilization of remaining laboratories will result in lower overhead costs. Specific locations and research projects were selected to provide additional resources necessary to carry out more critical research impacting food safety, methyl bromide alternatives and pesticide reduction.

Nature of Change. Research at the following locations is proposed for termination:

El Reno, Oklahoma ($356,700)

The mission of the Grazinglands Research Facility at El Reno is to increase the efficient production of lean red meat from forages by increasing the quantity and quality of forages. A soil/forage/animal systems research approach to meat production is the main research emphasis at El Reno. In addition, facilities are old and badly in need of upgrading/modernization, especially the feedlots, fences, other infrastructure, etc. Similar research is being conducted by ARS at Clay Center, Nebraska and Miles City, Montana. The research programs at these locations are better focused, more productive and can meet the research needs of clients located in different ecological production areas of the the United States.

Hilo, Hawaii ($1,477,900)

The mission of the ARS research unit in Hilo is to define the nutrient requirements of shrimp and finfish. Research accomplishments derived from the Oceanic Institute grant since its inception have been demonstration-type reports, with marginal discovery and few peer-reviewed articles. The ARS program is proposed for termination due to lack of funding to support the research program.

Beltsville, Maryland ($1,289,400)

The mission of the Livestock Insects Laboratory in Beltsville is to discover new knowledge for controlling insects to improve agricultural efficiency, and protect human and animal populations. Various methods are being developed to reduce the destructive effects of flies, mites, ticks, etc., on farm livestock and people. The major researchable problems that justified forming the laboratory have for the most part been solved. In addition, a portion of the current effort is duplicated elsewhere in ARS. These factors, plus old facilities necessitate the reduction of this effort.

Georgetown, Delaware ($756,200)

The mission of the Poultry Research Laboratory in Georgetown is to improve the lean-to-fat ratio of meat-type poultry. The program focuses on biochemical, genetic, nutritional, and physiological mechanisms concerned in the developmental control of fat and protein deposition. The poultry industry has indicated their priorities and the highest priorities are already being dealt with at other ARS locations. Therefore, duplication of effort is not warranted.

Lewisburg, Tennessee ($143,900)

The mission of the Dairy Production and Genetics Research Unit in Lewisburg is to conduct research related to problems in the operation of

dairy farmers in the upper South. Areas of research include nutrition, genetics, management, physiology of reproduction, and management of waste materials. Current funding is inadequate to support one scientist. In addition, only Jersey cows are available for research while the U.S. dairy herd is 90+ percent Holstein. Scientific productivity has been poor, (primarily due to lack of funds), and the facilities are old and badly outdated.

Headquarters and Area Management Reduction ($445,900)

In addition to terminations in direct research projects proposed herein, the Agency is proposing savings through a reduction in administrative and program management support. Reductions will be taken at the Washington, D.C. Headquarters and Area management offices.

(f) A redirection of $390,000 for research on higher priority projects.

Need for Change. ARS' research priorities are continually examined to ensure that they meet the needs of producers and consumers. Areas of increased importance which require additional resources through redirection are: food safety, methyl bromide alternatives, and pesticide reduction.

Nature of Change. The redirection of resources between major activities is as follows:

| From Animal Sciences: | To Commodity Conversion and Delivery: |
|---|---|
| Rangeland weeds, Albany, CA (-$390,000) | Methods for toxic residue detection, Albany, CA (+$390,000) |

(4) A net increase of $18,479,000 for research on Commodity Conversion and Delivery consisting of:

(a) An increase of $888,000 for anticipated pay costs.

(b) An increase of $1,520,000 which reflects a 2.6% increase in non-salary costs.

(c) An increase of $286,000 for anticipated SES lump-sum costs.

(d) A decrease of $1,514,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $1,514,000.

Nature of Change. In order to realize these savings, ARS will reduce discretionary expenses by $1,514,000 in FY 1995 in areas such as travel, printing, communications, supplies and materials, contracting, consultants, and extramural activities.

(e) A decrease of $1,600,000 which reflects savings from the close-out of research laboratories and reductions in lower priority research projects.

Need for Change. Streamlining the USDA research activities will result in the savings which will be directed to achieve critical research initiatives. The budget recommendations include the elimination of selected research locations and the termination and reduction of specific lines of ongoing research. More effective utilization of remaining laboratories will result in lower overhead costs. Specific locations and

research projects were selected to provide additional resources necessary to carry out more critical research impacting food safety, methyl bromide alternatives and pesticide reduction.

Nature of Change. Research at the following locations is proposed to be terminated:

Rotterdam, The Netherlands ($342,600)

The mission of the Rotterdam laboratory is to conduct research that will contribute to more efficient marketing of U.S. agricultural products in Europe. The program remains underfunded even with a fifty percent reduction in staff. With the maturation of the European market, the mission of this location is essentially accomplished. Thus, if limited agency resources become available, these would best be directed toward issues evolving from the emerging and rapidly expanding market opportunities for U.S. products in the Pacific Rim.

Pasadena, California ($450,000)

The mission of the Fruit and Vegetable Chemistry Laboratory in Pasadena is to conduct research on the chemistry, biochemistry and physiology of subtropical and citrus crops and products with primary emphasis on quality control and enhancement. Inflation and pay act increases have reduced discretionary funding levels for scientists to highly unacceptable levels and decreases in staffing and retirements have jeopardized adequacy of disciplinary diversity and critical mass. Further, the facility does not meet modern health and safety standards nor the California earthquake codes. Repairs are estimated at several million dollars. The major portion of the citrus quality research can be continued at the Agency's Western Regional Research Center, Albany, California. Other resources can be most effectively utilized at Fresno, California, for research on alternatives to methyl bromide, and at Salinas, California, for vegetable production systems research.

Savannah, Georgia ($450,000)

The mission of the Stored Product Insects Research and Development Laboratory in Savannah is to develop the means to prevent or reduce insect damage and contamination of agricultural commodities and their products in on-farm storage and in marketing channels. Though the laboratory is adequately funded to conduct its planned research, facilities at Savannah are old, inappropriate for today's research, and in need of costly repairs and modernization. The estimated cost of just bringing them up to modern, safe standards is more than $3 million. Further, the Agency has underutilized facilities at the U.S. Grain Marketing Research Laboratory, Manhattan, Kansas, and the Insect Attractants, Behavior and Basic Biology Laboratory, Gainesville, Florida. Redirection of the major portion of the resources to these locations would enhance the disciplinary diversity and critical mass at each. Other portions of the resources would be used to strengthen high priority programs on alternatives to methyl bromide and grain quality issues important to export.

Miami, Florida ($165,500)

The Subtropical Horticultural Research Laboratory in Miami has two distinct programs -- acquisition, maintenance, and distribution of subtropical and tropical germplasm of agricultural importance, and development of technologies to maintain quality and eliminate quarantine barriers for subtropical and tropical fruits and vegetables. Operating funds at this location no longer meet Agency standards and postharvest research has been severely limited due to loss of tropical and subtropical

fruit orchards in Hurricane Andrew. Reestablishment of fruit production in this area in the long-term is questionable. Facility disruption by the hurricane and unrelenting urban encroachment dictate consolidation of these activities at other relevant Agency locations. Transfer of the germplasm to Agency facilities at Mayaquez, Puerto Rico and Hilo, Hawaii, will consolidate appropriate conservation programs, increase management efficiency and eliminate possibility of frost damage to temperature sensitive materials. Similarly, consolidation of the postharvest programs at Orlando and Gainesville, Florida, will increase the opportunity for the Agency to achieve the disciplinary diversity and critical mass needed to develop alternatives to the postharvest fumigation use of methyl bromide and improved shelf life of U.S. exports.

Headquarters and Area Management Reduction ($191,900)

In addition to terminations in direct research projects proposed herein, the Agency is proposing savings through a reduction in administrative and program management support. Reductions will be taken at the Washington, D.C. Headquarters and Area management offices.

(f) An increase of $10,000,000 for research to assure the Safety of the **Food Supply**.

Need for Change. Food safety is a major concern of this nation's consumers. Agriculture's ability to meet food safety standards and maintain consumer confidence is critical. The public is aware that children may die or be permanently disabled from consuming a pathogen (e.g., E. coli 0157:H7) in contaminated food. This contributes to heightened consumer awareness of all microbial, parasitic and chemical contamination of food and intensifies the need to assure the safety and quality of both plant and animal derived foods.

The increased concern with human pathogens carried by meat and poultry and their products has dictated that microbial control start with the producer and that new methods be developed and implemented to prevent microbial contamination at the source, that is, in the live animal or bird. Small numbers of microorganisms on carcasses which cannot be readily detected during slaughtering and processing can quickly multiply to numbers which are hazardous to human health when the product is temperature-abused. Effective pathogen detection and control is also essential during all phases of slaughter and further processing in order to deliver a uniformly safe product and protect the public health.

Nature of Change. Elimination of hazardous microbial contamination in food requires both rapid and quantitative methods of hazard identification and effective pre- and postharvest production and processing microbial control technologies. The specific components of the program include:

- **Production Systems to Control Pathogens** ($5,000,000). Effective pathogen control must be based on: (a) knowledge of the epidemiology of the organism, and (b) a thorough knowledge of the pathogenesis of the disease. The research will particularly stress identification of sources of infection and a delineation of the pathogenesis of bacterial infections in animals which are of particular food safety concern (e.g., E. coli 0157:H7, Salmonella and Campylobacter, and tuberculosis); development of a basic understanding of cellular-based immunomodulation in order to enhance disease resistance and decrease carriers of pathogens; and development of vaccines, competitive bacterial flora or other specific disease control measures. This research is consistent with

the priorities and programs of the Food Safety and Inspection Service and the Animal and Plant Health Inspection Service.

- o E. coli, Salmonella and Other Food Pathogen Control during Slaughtering and Processing ($5,000,000). ARS will develop more rapid and user-friendly methodology to enhance identification of hazardous bacteria and detect improper preparation and handling of both meat and poultry carcasses and food products. Improved methods for slaughtering and processing, including alternatives to the use of chlorine, will be developed to minimize the sources of contamination. Models for bacterial growth will be expanded to include new pathogens, fluctuating temperatures, microbial interaction and competition, and product composition. Irradiation studies with beef, pork and poultry will be conducted to include several different E. coli 0157:H7 strains, and the effects of various product handling procedures and temperatures. These research thrusts are consistent with the priorities and programs of the Food Safety and Inspection Service.

  Within the increase requested, ARS will establish an 1890's Center of Excellence in cooperation with the University of Maryland - Eastern Shore. APHIS and FSIS also will participate in the Center. Funding for this initiative is $250,000.

(g) An increase of $5,000,000 for research on Alternatives to Methyl Bromide.

Need for Change. Methyl bromide is a halogenated hydrocarbon, broad spectrum biocide which is widely used as a structural, postharvest commodity and soil fumigant to control insects, weeds, and plant pathogens (including nematodes). Methyl bromide has been classified as an ozone depleter. Pursuant to the provisions of the Clean Air Act, EPA will regulate production and use of methyl bromide with a complete phaseout of production (and importation) by the year 2000.

Loss of methyl bromide as a soil fumigant for agricultural uses will adversely affect U.S. crop production. Alternative technologies and strategies to control soilborne pests (i.e., plant pathogens, including nematodes, insects, and weeds) are less effective and more costly than methyl bromide. Without methyl bromide, alternative soilborne disease and pest management strategies will be needed to make continued cultivation of high value crops (e.g., strawberries, tomatoes, nursery crops) economically feasible in the U.S.

Presently, methyl bromide is the only satisfactory postharvest fumigant of fresh commodities for insect pests. Its loss will have a severe impact on the shelf life of U.S. agricultural commodities sold domestically. Also, many U.S. agricultural commodities for export must be fumigated with methyl bromide on an absolute or "as needed" basis depending on the country and commodity to satisfy quarantine regulations. In addition, many fresh fruits and vegetables currently must be fumigated with methyl bromide as a condition of entry into the U.S. to prevent inadvertent introduction of foreign plant pests. These importations will be curtailed or stopped unless substitutes for methyl bromide can be found. Restriction or reduction of imported produce, particularly winter vegetables, would reduce the availability of fresh produce in the marketplace and change the food consumption patterns of the American public.

Nature of Change. Research will be initiated or expanded to develop effective, economically feasible alternatives to methyl bromide fumigation for domestic and quarantine purposes. Pest management strategies will be developed based on host resistance; microbial biological control; cultural practices; pest behavior modification and mating disruption; improved chemical control (including new or alternate chemicals, natural products, improved formulation technology, and improved application technology); and integrated pest management. These strategies will be compatible with existing production systems.

A wide range of management and technological options will be developed and evaluated to reduce farm costs, protect worker and consumer health, ensure environmental quality, and enhance beneficial biological interactions and natural processes.

Emphasis will also be placed on systems and combination approaches. Approaches will be developed which utilize and maximize the advantages of each component of the system (i.e., quickness of kill versus long-time protection) into integrated systems providing cost-effective protection with low environmental impact. It is critical that these systems be developed for commodities which can currently only be exported under methyl bromide mandatory protocols. Commodities to be addressed by this research include cherries, walnuts, apples, various berries, peaches, nectarines, citrus, grapes, and various vegetable crops.

**Soil Fumigation Alternatives.**

- **Biological Control** ($700,000). Antagonistic microorganisms and pathogens of major pre- and postharvest plant diseases will be isolated, identified, evaluated and developed for their pest management potential. Specific delivery technologies will be developed to ensure efficacy.

- **Host Resistance** ($1,000,000). Resistance will be developed in small fruit and vegetable crops to major pre- and postharvest pests, including insects, diseases, and nematodes. This will be achieved through conventional breeding and biotechnological approaches and induced resistance.

- **Cultural Practices** ($500,000). Crop production strategies will be developed that incorporate new and improved cultural practices to effectively and economically manage pests of strawberries, a major fruit crop that is very dependent on methyl bromide treatments. These will include improved crop rotations; soil amendments to improve soil structure and enhance natural disease, insect, and weed suppression; improved tillage; soil solarization; new and improved mulches; and soilless media.

- **Chemical Control** ($300,000). Improved chemical control technologies will be developed to manage pests of vegetable crops to ensure worker safety, consumer health, and environmental quality. Natural pesticide products will be identified, evaluated and developed. Improved pesticide formulation and delivery technologies will be developed.

**Quarantine Alternatives.**

- **Combination Treatments, Pest Free and Systems Approaches** ($1,900,000). Systems approaches and combination treatments for insect quarantine disinfestation will be developed for the export of commodities currently requiring methyl bromide fumigation. For many

U.S. export commodities, no known single treatment provides quarantine security. Techniques to develop pest free zones will be developed where possible to allow shipment of commodities without any commodity treatment, particularly where treatments degrade commodity quality.

- **Physical Control Treatments Including Temperature and Ionizing/Nonionizing Radiation** ($600,000). Work will be intensified to develop quarantine treatments based on the application of ionizing and nonionizing radiation. Research on heat shock and conditioning of a commodity before treatment will be instituted to increase the effectiveness of the treatment and provide for maintenance of commodity quality.

(h) A redirection of $3,899,000 for research on higher priority projects.

Need for Change. ARS' research priorities are continually examined to ensure that they meet the needs of producers and consumers. Areas of increased importance which require additional resources through redirection are: food safety, methyl bromide alternatives, and pesticide reduction.

Nature of Change. The redirection of resources between major activities is as follows:

| From Plant Sciences: | To Commodity Conversion and Delivery: |
|---|---|
| Transgenic introduction of novel compounds for insect control, Albany, CA (-$577,000) | Biochemical basis for resistance to aflatoxin production in tree nuts, Albany, CA (+$577,000) |
| Genes associated with flower development, Athens, GA (-$195,000) | Pathogen reduction in poultry, Athens, GA (+$195,000) |
| Pecan research, Athens, GA (-$242,000) | Fusarium mycotoxin formation/metabolites, Athens, GA (+$242,000) |
| Production of peptides, Peoria, IL (-$415,000) | Biochemical basis for mycotoxin resistance in corn, Peoria, IL (+$415,000) |
| Production of value-added seeds, Peoria, IL (-$274,000) | Biochemical basis for mycotoxin resistance in corn, Peoria, IL (+$274,000) |
| Bicochemical bases-insect behavior, Albany, CA (-$404,000) | Methodology to detect and control chemical residues, Albany, CA (+$404,000) |
| Improved nutrition quality of legume seed protein Ithaca, NY (-$316,000) | Control of translocation of toxic mineral levels in crops, Ithaca, NY (+$316,000) |
| Limitations to sucrose accumulation in sugarcane, Weslaco, TX (-$325,000) | Alternative postharvest quarantine treatments for fruit/vegetables, Weslaco, TX (+$325,000) |
| Detection and control strategies of citrus diseases, Orlando, FL (-$250,000) | Alternative postharvest technologies to meet export requirements, Orlando, FL (+$250,000) |

| | |
|---|---|
| Citrus/avocado nutrition Pasadena, CA (-$287,000) | Alternative quarantine treatments for tree nuts, dried/fresh fruits, Fresno, CA CA (+$287,000) |
| Bioregulation of plant responses, Pasadena, CA (-$159,000) | Alternative quarantine treatments for tree nuts, dried/fresh fruits, Fresno, CA (+$159,000) |
| Experimental bioassay growth systems Pasadena, CA (-$65,000) | Alternative quarantine treatments for tree nuts, dried/fresh fruits, Fresno, CA (+$65,000) |
| From Animal Sciences: | To Commodity Conversion and Delivery: |
| Rangeland weeds, Albany, CA (-$390,000) | Methods for toxic residue detection, Albany, CA (+$390,000) |

(5) A net increase of $3,763,000 for research on Human Nutrition consisting of:

(a) An increase of $188,000 for anticipated pay costs.

(b) An increase of $322,000 which reflects a 2.6% increase in non-salary costs.

(c) An increase of $74,000 for anticipated SES lump-sum costs.

(d) A decrease of $321,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $321,000.

Nature of Change. In order to achieve these savings, ARS will reduce discretionary expenses by $321,000 in FY 1995 in areas such as travel, printing, communications, supplies and materials, contracting, consultants, and extramural activities.

(e) An increase of $3,500,000 for research on Food Composition to Support Labeling Requirements.

Need for Change. The requirements for nutrient labeling of food demand that appropriate methods be available and standardized for regulatory and commercial use. Such standardization requires the availability of standard reference materials, both for pure nutrients and for food matrices. More accurate, cost effective and environmentally acceptable analytical methods than are now generally available for many nutrients must be devised. Rapid, accurate methods for analysis of food components, newly recognized as important for health and disease prevention (e.g., cartenoids, bioflavonoids, etc.), will also be required as nutritional value is established. More rapid transfer of new and improved methods are also needed to assure accurate labeling and reduction of enforcement problems. With suitable databases for food composition, the food industry can reduce labeling costs while assuring regulatory compliance.

Nature of Change. Measurement systems for nutrients and food components (e.g., folic acid vitamers, soluble and insoluble dietary fiber, vitamin E isomers, flavonoids, phyto-estrogens, saponins, and mineral species, such as selenium and chromium) will be developed.

Standard reference materials for food matrices will be developed for distribution by the National Institute of Standards and Technology. Priorities will be to standardize methods for nutrients required on the label as stated in the Nutrition Labeling and Education Act Regulations. In addition, folate research will be addressed to provide a scientific basis for decisions regarding the need for fortification of food.

As food components are identified in relation to protection from disease risk, priorities for their analysis will be determined. New data on food composition will be made available for appropriate databases as they are developed.

(6) A net decrease of $386,000 for research on Integration of Agricultural Systems consisting of:

(a) An increase of $183,000 for anticipated pay costs.

(b) An increase of $312,000 which reflects a 2.6% increase in non-salary costs.

(c) An increase of $59,000 for anticipated SES lump-sum costs.

(d) A decrease of $312,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $312,000.

Nature of Change. In order to achieve these savings, ARS will reduce discretionary expenses by $312,000 in FY 1995 in areas such as travel, printing, communications, supplies and materials, contracting, consultants, and extramural activities.

(e) A decrease of $628,000 which reflects savings from the closeout of research laboratories and reduction in lower priority research projects.

Need for Change. Streamlining the USDA research activities will result in savings which will be directed to achieve critical research initiatives. The budget recommendations include the elimination of selected research locations and the termination and reduction of specific lines of ongoing research. More effective utilization of remaining laboratories will result in lower overhead costs. Specific locations and research projects were selected to provide additional resources necessary to carry out more critical research impacting food safety, methyl bromide alternatives and pesticide reduction.

Nature of Change. Research at the following locations is proposed for termination:

El Reno, Oklahoma ($565,700)

The mission of the Grazinglands Research Facility at El Reno is to increase the efficient production of lean red meat from forages by increasing the quantity and quality of forages. A soil/forage/ animal systems research approach to meat production is the main research emphasis at El Reno. In addition, facilities are old and badly in need of upgrading/modernization, especially the feedlots, fences, other infrastructure, etc. Similar research is being conducted by ARS at Clay Center, Nebraska and Miles City, Montana. The research programs at these locations are better focused, more productive and can meet the research

needs of clients located in different ecological production areas of the the United States.

Headquarters and Area Management Reduction ($62,300)

In addition to terminations in direct research projects proposed herein, the Agency is proposing savings through a reduction in administrative and program management support. Reductions will be taken at the Washington, D.C. Headquarters and Area management offices.

United States Department of Agriculture
Agricultural Research Service

## CONTINGENCY RESEARCH FUND--FY 1993

The Contingency Research Fund, established by Congress in Fiscal Year 1962, is designed to provide a ready source of funds to meet unforeseen and immediate research needs. Releases from the fund are generally made in situations where an emergency funding exists, such as an unexpected scientific "breakthrough," or outbreaks of diseases or pest problems where it appears inadvisable to wait for consideration of additional funding through the regular budget process. In allocating these funds, the agency policy is to make no commitment beyond the current fiscal year.

| | 1993 Releases |
|---|---|
| Provide research resources to combat sweet potato whitefly. | $506,000 |
| College Station, Texas ..... 60,000 | |
| Weslaco, Texas .....100,000 | |
| Albany, California .....50,000 | |
| Phoenix, Arizona .....135,000 | |
| Athens, Georgia .....15,000 | |
| Tifton, Georgia .....45,000 | |
| Beltsville, Maryland .....46,000 | |
| Orlando, Florida .....55,000 | |
| Purchase equipment (computers, statistical software, temperature recorder, thermometer, chronometer, film recorder, dew point monitor), Fresno, California .. | 27,500 |
| Replace corn crop for animal feed lost during the Midwest floods, Clay Center, Nebraska ..... | 100,000 |
| Repair air conditioning system damaged during electrical storm; and purchase cold box and computers, Weslaco, Texas ..... | 116,662 |
| Replace/repair windows, skylight, vehicle tail lights, anemometer cups, roofs, aluminum wind tunnel and field erosion samplers damaged in hail storm, Lubbock, Texas ..... | 9,700 |
| Replace/repair roof panels, holes, and stress cracks in greenhouse damaged in hail storm, Stillwater, Oklahoma ..... | 14,400 |
| Replace/repair roof shingles, rain gutters, window screens, vent caps and pickup truck damaged in hail storm, Woodward, Oklahoma ..... | 6,000 |
| Replace portable greenhouses destroyed by high winds, Tifton, Georgia ..... | 9,540 |
| Replace environmental tunnel greenhouse destroyed by tornado, Gainesville, Florida ..... | 8,000 |
| Replace diesel-powered backup generator struck by lightning, Brooksville, Florida ..... | 22,000 |
| Replace air conditioning system struck by lightning, Canal Point, Florida ..... | 9,000 |
| Repair greenhouse roofs damaged in hail storm, Raleigh, North Carolina ..... | 37,821 |
| Assist APHIS in screwworm outbreak control: | |
| Lincoln, Nebraska ..... | 9,500 |
| Tuxtla, Mexico ..... | 22,400 |
| Total, Contingency Research Fund ..... | 898,523 |

STATEMENT OF OBLIGATIONS AND STAFF-YEARS BY LOCATION
(On basis of adjusted appropriation)

| Location | Actual 1993 | | Estimated 1994 | | Estimated 1995 | |
|---|---|---|---|---|---|---|
| | Dollars | Staff-Years | Dollars | Staff-Years | Dollars | Staff-Years |
| ALABAMA, Auburn..... | $2,654,466 | 36 | $2,777,600 | 36 | $2,777,600 | 36 |
| ALASKA, Fairbanks..... | 716,627 | 8 | 729,500 | 8 | - - | - - |
| ARIZONA | | | | | | |
| Phoenix..... | 6,626,073 | 103 | 7,411,100 | 103 | 7,411,100 | 101 |
| Tucson..... | 3,250,477 | 48 | 3,200,900 | 42 | 3,200,900 | 42 |
| Total..... | 9,876,550 | 151 | 10,612,000 | 145 | 10,612,000 | 143 |
| ARKANSAS | | | | | | |
| Booneville..... | 1,336,665 | 23 | 1,800,800 | 23 | 1,800,800 | 23 |
| Fayetteville..... | 924,943 | 12 | 1,071,000 | 11 | 1,071,000 | 11 |
| Pine Bluff..... | - - | - - | 112,500 | 3 | 112,500 | 3 |
| Stuttgart..... | 547,543 | 3 | 664,800 | 5 | 664,800 | 6 |
| Total..... | 2,809,151 | 38 | 3,649,100 | 42 | 3,649,100 | 43 |
| CALIFORNIA | | | | | | |
| Albany..... | 21,471,930 | 234 | 21,182,200 | 229 | 22,477,200 | 254 |
| Brawley..... | 325,725 | 6 | 306,000 | 6 | - - | - - |
| Davis..... | 1,614,054 | 26 | 1,797,300 | 29 | 1,797,300 | 28 |
| Fresno..... | 4,432,860 | 66 | 4,437,500 | 64 | 6,231,400 | 64 |
| Pasadena..... | 1,491,780 | 20 | 1,520,400 | 18 | - - | - - |
| Riverside..... | 3,977,056 | 51 | 3,917,600 | 51 | 3,917,600 | 52 |
| Salinas..... | 2,133,807 | 37 | 1,982,900 | 36 | 2,368,200 | 36 |
| San Francisco..... | 4,633,866 | 42 | 4,643,300 | 41 | 4,643,300 | 40 |
| Shafter..... | 954,681 | 10 | 1,057,000 | 12 | 1,057,000 | 12 |
| Total..... | 41,035,759 | 492 | 40,844,200 | 486 | 42,492,000 | 486 |
| COLORADO | | | | | | |
| Akron..... | 1,418,424 | 17 | 1,245,900 | 23 | 1,245,900 | 23 |
| Fort Collins..... | 10,880,552 | 143 | 10,895,300 | 140 | 10,795,300 | 139 |
| Total..... | 12,298,976 | 160 | 12,141,200 | 163 | 12,041,200 | 162 |
| DELAWARE | | | | | | |
| Georgetown..... | 769,735 | 10 | 756,200 | 12 | - - | - - |
| Newark..... | 635,922 | 10 | 619,600 | 11 | 619,600 | 11 |
| Total..... | 1,405,657 | 20 | 1,375,800 | 23 | 619,600 | 11 |
| DISTRICT OF COLUMBIA | | | | | | |
| Program..... | 4,292,825 | 67 | 6,505,600 | 92 | 6,546,900 | 96 |
| Headquarters | | | | | | |
| Federal Admin..... | 34,523,105 | 557 | 37,395,800 | 576 | 36,323,200 | 555 |
| Central Services.... | 8,072,577 | - - | 8,068,300 | - - | 8,068,300 | - - |
| Subtotal..... | 42,595,682 | 557 | 45,464,100 | 576 | 44,391,500 | 555 |
| Total..... | 46,888,507 | 624 | 51,969,700 | 668 | 50,938,400 | 651 |
| FLORIDA | | | | | | |
| Brooksville..... | 766,078 | 11 | 735,900 | 10 | 735,900 | 10 |
| Canal Point..... | 999,735 | 21 | 951,100 | 22 | 951,100 | 22 |
| Fort Lauderdale..... | 706,957 | 11 | 858,400 | 18 | 858,400 | 17 |
| Gainesville..... | 9,888,555 | 149 | 9,764,400 | 146 | 11,084,400 | 158 |
| Miami..... | 1,751,647 | 34 | 1,752,100 | 33 | - - | - - |
| Orlando..... | 4,804,356 | 69 | 4,694,000 | 64 | 5,468,800 | 80 |
| Winter Haven..... | 1,274,254 | 18 | 1,279,500 | 18 | 1,279,500 | 18 |
| Total..... | 20,191,582 | 313 | 20,035,400 | 311 | 20,378,100 | 305 |

STATEMENT OF OBLIGATIONS AND STAFF-YEARS BY LOCATION
(On basis of adjusted appropriation)

| Location | Actual 1993 | | Estimated 1994 | | Estimated 1995 | |
|---|---|---|---|---|---|---|
| | Dollars | Staff-Years | Dollars | Staff-Years | Dollars | Staff-Years |
| GEORGIA | | | | | | |
| Athens | 14,331,147 | 193 | 15,957,200 | 195 | 16,757,200 | 209 |
| Byron | 2,196,891 | 43 | 2,167,600 | 39 | 2,167,600 | 39 |
| Dawson | 2,230,623 | 33 | 2,089,200 | 29 | 2,089,200 | 31 |
| Experiment | 1,814,272 | 23 | 1,669,600 | 21 | 1,669,600 | 21 |
| Savannah | 2,778,425 | 45 | 2,820,000 | 39 | - - | - - |
| Tifton | 8,567,359 | 114 | 8,175,100 | 108 | 8,625,100 | 108 |
| Watkinsville | 2,059,955 | 21 | 2,045,100 | 22 | 2,045,100 | 23 |
| Total | 33,978,672 | 472 | 34,923,800 | 453 | 33,353,800 | 431 |
| HAWAII, Hilo | 8,532,164 | 93 | 9,101,300 | 105 | 7,623,500 | 100 |
| IDAHO | | | | | | |
| Aberdeen | 1,878,934 | 18 | 1,942,500 | 19 | 1,942,500 | 19 |
| Boise | 1,717,774 | 19 | 1,811,400 | 21 | 1,811,400 | 21 |
| Dubois | 2,128,440 | 18 | 2,090,100 | 19 | 2,090,100 | 19 |
| Kimberly | 2,491,846 | 41 | 2,583,500 | 40 | 2,583,500 | 40 |
| Total | 8,216,994 | 96 | 8,427,500 | 99 | 8,427,500 | 99 |
| ILLINOIS | | | | | | |
| Peoria | 24,800,665 | 292 | 26,863,200 | 293 | 26,763,200 | 293 |
| Urbana | 4,021,803 | 46 | 3,661,200 | 43 | 3,661,200 | 43 |
| Total | 28,822,468 | 338 | 30,524,400 | 336 | 30,424,400 | 336 |
| INDIANA, Lafayette | 4,477,596 | 37 | 4,477,400 | 38 | 4,477,400 | 39 |
| IOWA, Ames/Ankeny | 26,189,883 | 347 | 25,687,300 | 344 | 27,937,300 | 344 |
| KANSAS, Manhattan | 4,947,683 | 68 | 5,191,500 | 66 | 6,981,100 | 84 |
| KENTUCKY, Lexington | 1,546,942 | 15 | 1,548,500 | 16 | - - | - - |
| LOUISIANA | | | | | | |
| Baton Rouge | 2,039,735 | 29 | 1,965,700 | 27 | 1,965,700 | 27 |
| Houma | 1,365,884 | 32 | 1,382,900 | 33 | - - | - - |
| New Orleans | 17,771,545 | 204 | 17,934,000 | 201 | 17,934,000 | 200 |
| Total | 21,177,164 | 265 | 21,282,600 | 261 | 19,899,700 | 227 |
| MAINE, Orono | 884,532 | 11 | 866,900 | 13 | 866,900 | 14 |
| MARYLAND | | | | | | |
| Beltsville | 90,597,378 | 1,275 | 85,800,200 | 1,211 | 89,548,200 | 1,207 |
| Frederick | 2,298,379 | 31 | 2,120,300 | 29 | 2,120,300 | 29 |
| Hyattsville | 895,281 | 8 | 649,700 | 8 | 649,700 | 8 |
| Princess Anne | - - | - - | - - | - - | 225,000 | 3 |
| Total | 93,791,038 | 1,314 | 88,570,200 | 1,248 | 92,318,200 | 1,247 |
| MASSACHUSETTS, Boston | 14,132,420 | 7 | 13,847,000 | 10 | 13,847,000 | 11 |
| MICHIGAN, East Lansing | 4,076,113 | 57 | 3,901,600 | 54 | 3,901,600 | 54 |

STATEMENT OF OBLIGATIONS AND STAFF-YEARS BY LOCATION
(On basis of adjusted appropriation)

| Location | Actual 1993 | | Estimated 1994 | | Estimated 1995 | |
|---|---|---|---|---|---|---|
| | Dollars | Staff-Years | Dollars | Staff-Years | Dollars | Staff-Years |
| MINNESOTA | | | | | | |
| East Grand Forks | 952,888 | 10 | 960,300 | 9 | - - | - - |
| Morris | 2,476,917 | 39 | 2,440,800 | 39 | 2,440,800 | 38 |
| St. Paul | 4,461,828 | 49 | 4,372,700 | 49 | 4,372,700 | 47 |
| Total | 7,891,633 | 98 | 7,773,800 | 97 | 6,813,500 | 85 |
| MISSISSIPPI | | | | | | |
| Mississippi State | 6,671,974 | 99 | 6,500,900 | 96 | 6,500,900 | 95 |
| Oxford | 5,254,053 | 62 | 5,174,400 | 61 | 5,624,400 | 61 |
| Poplarville | 840,482 | 13 | 809,000 | 14 | 809,000 | 13 |
| Stoneville | 14,299,694 | 200 | 14,152,600 | 196 | 14,052,600 | 196 |
| Total | 27,066,203 | 374 | 26,636,900 | 367 | 26,986,900 | 365 |
| MISSOURI, Columbia | 5,542,734 | 66 | 4,832,900 | 65 | 4,832,900 | 64 |
| MONTANA | | | | | | |
| Bozeman | 1,707,138 | 30 | 1,652,600 | 24 | 1,652,600 | 23 |
| Miles City | 1,934,585 | 19 | 1,877,100 | 20 | 1,877,100 | 21 |
| Sidney | 756,318 | 11 | 741,600 | 14 | - - | - - |
| Total | 4,398,041 | 60 | 4,271,300 | 58 | 3,529,700 | 44 |
| NEBRASKA | | | | | | |
| Clay Center | 12,387,440 | 138 | 12,611,200 | 140 | 14,186,200 | 151 |
| Lincoln | 4,281,229 | 45 | 4,263,900 | 40 | 4,263,900 | 38 |
| Total | 16,668,669 | 183 | 16,875,100 | 180 | 18,450,100 | 189 |
| NEVADA, Reno | 529,699 | 7 | 491,000 | 7 | 491,000 | 7 |
| NEW JERSEY | | | | | | |
| Chatsworth | 508,735 | 4 | 514,400 | 4 | - - | - - |
| NEW MEXICO | | | | | | |
| Las Cruces | 1,455,198 | 23 | 1,451,200 | 23 | 1,451,200 | 23 |
| NEW YORK | | | | | | |
| Geneva | 1,089,639 | 8 | 1,201,000 | 7 | 1,201,000 | 7 |
| Ithaca | 3,898,958 | 39 | 3,701,800 | 43 | 3,701,800 | 43 |
| Plum Island | 9,240,790 | 47 | 9,034,300 | 46 | 9,034,300 | 46 |
| Total | 14,229,387 | 94 | 13,937,100 | 96 | 13,937,100 | 96 |
| NORTH CAROLINA | | | | | | |
| Oxford | 1,803,689 | 29 | 1,766,800 | 29 | - - | - - |
| Raleigh | 5,663,037 | 65 | 5,547,300 | 64 | 5,547,300 | 67 |
| Total | 7,466,726 | 94 | 7,314,100 | 93 | 5,547,300 | 67 |
| NORTH DAKOTA | | | | | | |
| Fargo | 9,450,245 | 123 | 9,488,700 | 120 | 9,488,700 | 120 |
| Grand Forks | 7,297,917 | 65 | 7,327,100 | 63 | 7,327,100 | 63 |
| Mandan | 2,890,573 | 46 | 2,817,500 | 45 | 2,817,500 | 45 |
| Total | 19,638,735 | 234 | 19,633,300 | 228 | 19,633,300 | 228 |

STATEMENT OF OBLIGATIONS AND STAFF-YEARS BY LOCATION
(On basis of adjusted appropriation)

| Location | Actual 1993 | | Estimated 1994 | | Estimated 1995 | |
|---|---|---|---|---|---|---|
| | Dollars | Staff-Years | Dollars | Staff-Years | Dollars | Staff-Years |
| OHIO | | | | | | |
| Columbus | 849,933 | 9 | 764,200 | 10 | 764,200 | 10 |
| Coshocton | 1,009,574 | 18 | 1,014,100 | 18 | 1,014,100 | 18 |
| Delaware | 327,740 | 4 | 304,800 | 6 | - - | - - |
| Wooster | 2,326,732 | 40 | 2,350,700 | 35 | 2,350,700 | 35 |
| Total | 4,513,979 | 71 | 4,433,800 | 69 | 4,129,000 | 63 |
| OKLAHOMA | | | | | | |
| Durant | 2,489,013 | 39 | 2,472,000 | 33 | 2,472,000 | 33 |
| El Reno | 1,618,619 | 23 | 1,666,900 | 22 | - - | - - |
| Lane | 1,707,178 | 27 | 1,727,300 | 26 | 1,727,300 | 26 |
| Stillwater | 2,412,634 | 35 | 2,382,600 | 33 | 2,382,600 | 36 |
| Woodward | 1,338,750 | 18 | 1,265,800 | 21 | 1,265,800 | 21 |
| Total | 9,566,194 | 142 | 9,514,600 | 135 | 7,847,700 | 116 |
| OREGON | | | | | | |
| Burns | 493,935 | 3 | 494,200 | 4 | 494,200 | 4 |
| Corvallis | 4,597,862 | 70 | 5,214,300 | 70 | 5,484,300 | 72 |
| Pendleton | 1,458,664 | 20 | 1,445,300 | 20 | 1,445,300 | 20 |
| Total | 6,550,461 | 93 | 7,153,800 | 94 | 7,423,800 | 96 |
| PENNSYLVANIA | | | | | | |
| University Park | 2,811,677 | 43 | 2,871,100 | 43 | 2,871,100 | 40 |
| Wyndmoor | 19,458,982 | 235 | 21,179,700 | 239 | 23,104,700 | 273 |
| Total | 22,270,659 | 278 | 24,050,800 | 282 | 25,975,800 | 313 |
| SOUTH CAROLINA | | | | | | |
| Charleston | 2,592,574 | 42 | 2,593,600 | 37 | 3,043,600 | 40 |
| Clemson | 1,841,212 | 30 | 1,998,300 | 31 | 1,998,300 | 31 |
| Florence | 2,044,927 | 30 | 1,999,300 | 27 | 1,999,300 | 27 |
| Total | 6,478,713 | 102 | 6,591,200 | 95 | 7,041,200 | 98 |
| SOUTH DAKOTA | | | | | | |
| Brookings-Madison | 1,627,661 | 28 | 1,672,700 | 25 | 1,672,700 | 25 |
| TENNESSEE | | | | | | |
| Jackson | 167,607 | 2 | 166,900 | 2 | - - | - - |
| Lewisburg | 143,815 | 2 | 143,900 | 1 | - - | - - |
| McMinnville | - - | - - | 450,000 | 2 | 450,000 | 6 |
| Total | 311,422 | 4 | 760,800 | 5 | 450,000 | 6 |
| TEXAS | | | | | | |
| Beaumont | 1,018,316 | 16 | 958,100 | 16 | 958,100 | 16 |
| Brownwood | 586,215 | 13 | 581,100 | 13 | - - | - - |
| Bushland | 2,370,968 | 33 | 2,330,600 | 37 | 2,330,600 | 37 |
| College Station | 11,484,623 | 153 | 11,324,800 | 153 | 11,782,800 | 151 |
| Houston | 10,215,610 | 7 | 10,173,600 | 8 | 10,173,600 | 10 |
| Kerrville | 2,589,191 | 44 | 2,691,100 | 48 | 2,691,100 | 50 |
| Lubbock | 3,377,440 | 54 | 3,175,200 | 63 | 3,175,200 | 63 |
| Temple | 3,114,279 | 48 | 3,029,700 | 46 | 3,029,700 | 46 |
| Weslaco | 7,900,187 | 118 | 8,514,300 | 117 | 8,739,300 | 127 |
| Total | 42,656,829 | 486 | 42,778,500 | 501 | 42,880,400 | 500 |

STATEMENT OF OBLIGATIONS AND STAFF-YEARS BY LOCATION
(On basis of adjusted appropriation)

| Location | Actual 1993 | | Estimated 1994 | | Estimated 1995 | |
|---|---|---|---|---|---|---|
| | Dollars | Staff-Years | Dollars | Staff-Years | Dollars | Staff-Years |
| UTAH, Logan | 5,078,594 | 48 | 3,992,900 | 50 | 3,992,900 | 50 |
| VIRGINIA | | | | | | |
| Suffolk | 782,298 | 9 | 666,700 | 9 | - - | - - |
| WASHINGTON | | | | | | |
| Prosser | 2,678,576 | 37 | 2,257,600 | 36 | 2,257,600 | 36 |
| Pullman | 6,702,299 | 93 | 6,583,800 | 93 | 6,583,800 | 93 |
| Wenatchee | 1,386,340 | 22 | 1,461,200 | 22 | 1,461,200 | 22 |
| Yakima | 2,903,383 | 47 | 2,724,900 | 58 | 3,264,900 | 58 |
| Total | 13,670,598 | 199 | 13,027,500 | 209 | 13,567,500 | 209 |
| WEST VIRGINIA | | | | | | |
| Beckley | 3,516,720 | 52 | 3,454,800 | 53 | 3,454,800 | 53 |
| Kearneysville | 6,221,527 | 61 | 4,749,000 | 65 | 4,749,000 | 65 |
| Total | 9,738,247 | 113 | 8,203,800 | 118 | 8,203,800 | 118 |
| WISCONSIN, Madison | 5,608,967 | 66 | 5,371,400 | 65 | 5,371,400 | 64 |
| WYOMING | | | | | | |
| Cheyenne | 1,663,467 | 27 | 1,621,500 | 26 | 1,621,500 | 26 |
| Laramie | 1,930,045 | 26 | 2,016,500 | 26 | 2,016,500 | 26 |
| Total | 3,593,512 | 53 | 3,638,000 | 52 | 3,638,000 | 52 |
| PUERTO RICO | | | | | | |
| Mayaguez | 2,300,686 | 46 | 2,251,400 | 43 | 2,684,400 | 47 |
| VIRGIN ISLANDS | | | | | | |
| St. Croix | 264,079 | 5 | 284,900 | 5 | 284,900 | 5 |
| OTHER COUNTRIES | | | | | | |
| Argentina, Buenos Aires | 310,167 | - - | 281,000 | - - | 281,000 | - - |
| France, Montpellier | 2,524,161 | 4 | 1,860,700 | 4 | 1,860,700 | 4 |
| Korea, Seoul | 206,739 | 1 | - - | - - | - - | - - |
| Mexico, Tuxtla Gutierrez | 1,034,173 | 5 | 915,600 | 5 | 915,600 | 5 |
| Netherlands, Rotterdam | 352,852 | 1 | 342,600 | 1 | - - | - - |
| Total | 4,428,092 | 11 | 3,399,900 | 10 | 3,057,300 | 9 |

STATEMENT OF OBLIGATIONS AND STAFF-YEARS BY LOCATION
(On basis of adjusted appropriation)

| Location | Actual 1993 | | Estimated 1994 | | Estimated 1995 | |
|---|---|---|---|---|---|---|
| | Dollars | Staff-Years | Dollars | Staff-Years | Dollars | Staff-Years |
| Extramural and Funds Administered from Headquarters.... | 7,204,038 | - - | 31,240,700 | - - | 44,966,800 | - - |
| Contingency Research Fund..... | 1/ | - - | 928,500 | - - | 928,500 | - - |
| Repair & Maintenance of Facilities..... | 17,064,876 | - - | 17,362,500 | - - | 17,362,500 | - - |
| Unobligated Balance.... | 2,564,832 | - - | - - | - - | - - | - - |
| Subtotal, Available or Estimate..... | 660,321,441 | 7,953 | 683,540,000 | 7,910 | 696,718,000 | 7,762 |
| Allotment to Forest Service..... | 345,559 | - - | 361,000 | - - | 361,000 | - - |
| Transfer to Off. of Sec | 212,000 | - - | - - | - - | - - | - - |
| Pay Costs..... | - - | - - | - - | - - | 4,139,000 | - - |
| TOTAL, Appropriation... | 660,879,000 | 7,953 | 683,901,000 | 7,910 | 701,218,000 | 7,762 |

NOTE:

1/ Obligations incurred in 1993 under the Contingency Research Fund in the amount of $898,523 are reflected in the amount for recipient locations.

AGRICULTURAL RESEARCH SERVICE

STATUS OF PROGRAM

Current activities, progress, and programs under each project are outlined below:

RESEARCH IN SOIL, WATER, AND AIR SCIENCES

Current Activities: Management guidelines, practices, and systems are being developed to promote cost-effective conservation and enhancement of the quality and production capacity of our Nation's soil, water, and air resources for future generations. The research program stresses the development of resource management systems that farmers, extension specialists, and agri-industry can use to maintain and enhance farm profitability while minimizing or reversing adverse impacts on long-term productivity and the environment. The program includes research on technologies for assessing the effects of agricultural activities on the quality and productivity of the natural resource base and of changes in the quality of the resource base on the profitability and productivity of agriculture. Emphasis is given to the development of management practices that reduce soil erosion, improve chemical use efficiency, maintain an optimum physical and biological soil environment for plant growth, and conserve the quality and quantity of the Nation's surface water and ground water resources. Research is also conducted to ensure that soil and water conservation strategies are consistent with the productivity goals of agriculture and the long-term profitability of farming. Emphasis is being placed on water quality protection, sustainable agriculture, waste utilization, and a better understanding of the impact of global change on agricultural productivity and on soil and water conservation and protection.

Selected examples of recent progress:

Erosion was controlled by no-till and when postemergence herbicides were used they did not contaminate water supplies. Conservation tillage, including no-till, controls soil erosion but may harm water quality because no-till generally results in higher water infiltration rates, thus permitting more water and, possibly, more chemicals to leach below the plant root zone. Since 1990, scientists have measured herbicide levels in surface runoff and shallow ground water on two similar fields in northern Mississippi. While about 100 times less sediment was lost under no-till, only preemergence--not postemergence--herbicides were detected in the runoff and shallow ground water. So far, the data do not indicate any overall water quality problems when soybeans are grown under no-till with low inputs of chemicals.

Lupins show potential for harnessing the winter growing season to provide high protein grain and forage. Lack of a legume grain cash crop leaves many areas in the South unproductive and unprotected during the winter months. Working with new varieties of lupins, researchers in Alabama have produced up to 60 bushels of 36 percent protein grain during the winter growing season. Manufacturers have processed the lupin grain into a nutritious, high protein pasta. If disease problems can be overcome and the commercial potential developed, lupins will provide a crop needed in rotations that protect land from erosion; reduce the need for nitrogen fertilizer; and break biocycles that lead to buildup of diseases, insects and weeds, thereby reducing the need for farm chemicals.

Byproducts of cleaning air can improve productivity and water use on soils. Removal of sulfur oxides from the gaseous emissions of power plants is accomplished effectively by the use of calcium oxide. This process precipitates gypsum along with smaller amounts of other oxides and sulfates at rates of about 60 million tons per year. Studies in Indiana, Georgia, Colorado, and West Virginia show that these gypsiferous materials have the potential to substantially decrease runoff, increase infiltration, and increase productivity of our acid soils. When these potentials are fully developed, these waste

products (which now require costly disposal) should become a resource that will improve water use efficiency and productivity of acid and sodic soils.

Illite Clay holds large amounts of nitrogen and can release significant amounts to growing crops. Analyses of some soils for nitrogen available to crops often do not accurately predict crop response to added fertilizer. This can lead to uncertain fertilizer recommendations, leaching loss of nitrogen, and decreased yields. Amounts of ammonium nitrogen held between the platelets of illitic clays were determined on soils from several States where anomalous crop response to nitrogen had been reported. Up to 7,000 pounds of nitrogen per acre is held in this manner within the root zone in some soils. While the percentage of this nitrogen leaving the clay and being picked up by plant roots is small during a growing season, the total amount is often a significant part of the crops' needs. Understanding the huge capacity of these illitic soils to absorb and release nitrogen, and the rates of release involved, will enable more accurate fertilizer recommendations, thereby increasing crop yields and water quality.

Native grass seeds can be induced to germinate more rapidly in the spring to better compete with introduced weeds. Invasion of non-native weeds is a major source of resource degradation on millions of rangeland acres in the western United States. These weeds germinate rapidly in the fall and spring and become established more quickly than native species after site disturbance by wildfire. At Boise, Idaho, ARS scientists have developed techniques for treating native grass seeds so that they germinate faster at cold temperatures. Early germination and establishment allow the native species to take better advantage of soil moisture and get a head start in their competition with weeds. The Bureau of Land Management will be testing this technology for use in its 'greenstripping' program and in post-burn rangeland restoration efforts. Bulk seed treatments may also make it more economical for commercial seed companies to produce native grass seeds for burn-rehabilitation and restoration of public rangelands.

Improved design procedure will enhance the safety of earth emergency spillways. As part of its overall strategy to reduce the damages to property from large stream flows, the Soil Conservation Service (SCS) has assisted in the construction of more than 25,000 flood control structures. Most of these structures use earth emergency spillways to protect the dam from overtopping during major flood events. Concern about the risk of serious structural damage leading to breaching of these spillways has increased because of downstream development since construction has greatly increased the potential for major economic and environmental damage. A team of ARS and SCS professionals has developed an improved procedure for predicting the potential for failure of these earth spillways. This procedure is based on the research findings of ARS and the field data and expertise of SCS. The procedure is being incorporated into software for use in designing new spillways and, where appropriate, modifying existing spillways. (Several other agencies and organizations will undoubtedly benefit from this development.)

Crop residues and earthworm activity in no-till farming control erosion. Row crop production on steep, erodible fields has often resulted in major land and water degradation. No-till farming systems offer an economically viable solution to the sustainable farming of these lands. Long-term watershed research in the steep Appalachian region of eastern Ohio has shown that the increased organic matter in the surface soil resulting from no-till farming increases earthworm activity, reduces runoff and erosion, and increases crop yields. Many of the critical resource conservation and environmental aspects of no-till farming were identified and evaluated on these steep Appalachian watersheds, enabling this conservation farming system to gain wide acceptance in the farm community. Primarily because of the soil conservation benefits of no-till farming, about 32 million acres of the Nation's croplands are now in no-till farming, and the Conservation Technology Information Center in West Lafayette, Indiana, predicts an increase to 45 million acres by 1995.

In-vitro grown symbiotic fungi can be utilized as biofertilizer. Inoculation of fields with symbiotic fungi, "Biofertilizer," can relieve our dependency on costly synthetic fertilizers and pesticides and remove the threat of soil erosion and ground water pollution. Scientists at Wyndmoor, Pennsylvania, have discovered specific growth factors that allow the production of symbiotic fungi, which previously could not be grown in the absence of living plant roots. These studies demonstrate that the growth of the fungal cells under these laboratory conditions is not abnormal; i.e., nuclear cell division is the same as if the fungus were in intimate contact with the plant root. Symbiotic fungi produced in this manner could ultimately be scaled-up to commercial production and exploited for preinoculation of crop lands to support a program of low input sustainable agriculture.

Constructed wetland treats dairy farm wastewater. The Soil Conservation Service (SCS) personnel and technical consultants who are designing animal waste management facilities have only limited information on water quality benefits. SCS and ARS constructed a lagoon and three individual wetland cells on a dairy farm in Mississippi in 1990. A secondary or fourth cell was added in 1991 to increase the loading capability of the wetland system. ARS researchers evaluated the cell processing efficiency of 18 contaminants derived from milking equipment and tank cleanings, milking barn washings, loading area runoff, and rainfall. The greatest reductions were measured for coliform bacteria; ammonia; chlorophyll; and--to a lesser degree--carbonaceous biochemical and chemical oxygen demand; suspended solids; and total and filterable orthophosphorus. As the constructed wetland matures, a very successful point source management system is being demonstrated.

Pelleted paper and tire wastes show promise for wind erosion control. Waste paper and used tires are major components of the U.S. waste stream, filling landfills and otherwise posing environmental hazards. Soil erosion control is enhanced on many agricultural lands by maintaining mulch on the surface and increasing infiltration rates, but some crops do not leave enough mulch on the surface to give the needed protection. Scientists in Alabama and Texas are studying methods of using these wastes and their effects on soils and crops. Wind tunnel tests show that covering 10, 20, and 30 percent of soil surfaces with either of these wastes reduces soil erosion from wind by 70, 80, and 90 percent, respectively. If waste utilization techniques can be perfected and made economical, two important national problems--municipal waste disposal and erosion control--will be reduced.

Limestone sinkholes can funnel livestock waste and other pollutants into cave streams. Sinkholes are characteristic of limestone bedrock areas over karst formations found in the Midwest, Appalachia, and in Florida. These sinkholes feed surface springs and wells used for drinking water. As part of the USDA Water Quality Initiative, scientists have been sampling West Virginia's cave springs and streams, as well as a surface stream, weekly for the past 3 years. One cave stream system had a high nitrate level of 82 parts per million and an excessive fecal coliform bacteria count of over 23,000 colonies per 100 milliliters. ARS is cooperating with the Soil Conservation Service and Extension Service to investigate improved nutrient and livestock waste practices to reduce the water contamination.

## RESEARCH IN PLANT SCIENCES

Current Activities: The research places emphasis on improving the efficiency of crop production and the quality of that production. By developing improved crop varieties, reducing costs and inputs associated with production, and improving quality (and value) to meet processor and consumer needs, plant science research will help to maintain and improve the competitiveness of our agricultural products in domestic and world markets. Research is conducted on a broad range of crops including grains, oilseeds, sugar crops, fruits, vegetables, ornamentals, forage, range, and industrial crops. The National Plant Germplasm System provides the foundation for genetic improvement and encompasses the acquisition, preservation, evaluation, and enhancement activities necessary to

properly utilize plant germplasm. New technologies offer powerful tools that can be utilized in genetic mapping and gene transfer. A broad range of technologies is being utilized to protect plants from disease, insect, nematode, weed, and climatic stresses. These include quarantine, biocontrol, host-plant resistance, management systems, and chemicals. Special emphasis is placed upon integrated approaches that are effective, efficient, and protective of soil, air, and water resources.

Selected examples of recent progress:

Genetic markers found in eastern gamagrass could significantly impact the development of superior corn varieties and improved forage grasses. The transfer of important genetic traits between corn and eastern gamagrass (a perennial grass distantly related to corn) has been hindered by limited genetic information and how best to utilize and manipulate genes from one to the other. Recently, molecular markers to identify (by DNA fingerprinting) the location of important agronomic, stress, and disease resistance traits have been developed from both species. This interregional cooperative research project at USDA units in Woodward, Oklahoma, and Columbia, Missouri, in cooperation with the University of Missouri-Columbia, combines the unique germplasm and expertise in plant breeding, cytology, and molecular biology that exists at these two facilities. The continuation of research on eastern gamagrass is intimately and mutually beneficial for the agronomic improvement of both corn and eastern gamagrass as food, grain, and forage crops in the United States and worldwide.

Amber spurge fleabeetles control leafy spurge. Leafy spurge, a noxious weed, suppresses native vegetation and reduces biodiversity over an estimated 5 million acres in at least 23 States. Economic losses exceed $100 million annually on 1 million acres in North Dakota alone. The amber spurge fleabeetle, a biocontrol agent, was tested by ARS scientists at Montpellier, France, and introduced in 1987 into a leafy spurge experimental site near Bozeman, Montana, by personnel at that location. Adult fleabeetles destroy leaves and flowers on above-ground stems while larvae feed on the roots, reducing the plant's uptake of water and nutrients. By 1992, amber spurge fleabeetles had reduced the canopy cover of leafy spurge from its 1987 level of 57 percent to less than 1 percent while restoring native vegetation and biodiversity. In 1992 and 1993, more than 200,000 beetles were transferred from the Bozeman site to action agencies and public land managers to provide for 400 field insectaries for future redistribution to public lands and private individuals.

High levels of natural resistance to corn earworm have been found. The corn earworm is a highly destructive pest on corn crops. To reduce the use of persistent pesticides, ARS scientists at Athens, Georgia, have identified compounds in corn silks that prevent earworm damage in resistant corn varieties. Additionally, corn varieties have been found that make large amounts of these compounds. These newly discovered sources of resistance can now be used in breeding programs to produce varieties with genetic resistance to the corn earworm so that application of pesticides can be reduced or eliminated.

Coating for encapsulating pesticides and more. ARS scientists have developed a material made of cornstarch and lipid that coats and encapsulates pesticides and similar materials. This coating has been successfully tested as a seed coating for corn, soybeans, and other seeds. It adheres well, is highly stable and nontoxic, and allows the applied pesticide to retain its effectiveness because it is protected from degradation. The new product means that much smaller amounts of pesticide can be used on seeds without loss of effectiveness. This product is also being tested as a carrier for pharmaceutical products. In addition to the direct benefits, this type of high-value product could greatly expand the demand for cornstarch and vegetable oils, all of which are important products of American agriculture. The total market is not known at this time. However, the new technology should increase the demand for corn into the hundreds of thousands of bushels in order to produce the starch needed for the encapsulation process.

Germplasm line releases benefit commercial plant breeders. Commercial plant breeders have a continuing need to use improved germplasm lines as parents in their breeding programs. ARS scientists collect diverse germplasm throughout the world, improve the germplasm so that it approaches commercial acceptability, and release improved germplasm lines from which commercial companies can introduce and sell new improved varieties. ARS annually releases about 270 new plant varieties and germplasm lines; many of these releases are made cooperatively with State universities and nearly all have improved resistance to insect, disease, and nematode pests.

Leaf surface chemicals have high biological and pesticidal activities. Aphids and sweetpotato whiteflies are highly destructive pests on many food and commodity crops. ARS scientists at Athens, Georgia, analyzed the biological activities of leaf surface chemicals from species of Nicotiana--plants that are related to tobacco--and found that many of the plants produce chemicals that are not only toxic to aphids and whiteflies but also to bacteria; other chemicals are potent regulators of plant growth. The compositions of several of these active chemicals were determined to be derivatives of common sugar. The biological activity found in these compounds shows considerable potential for development into antibiotics, plant growth regulators, and biosafe natural pesticides.

Nematodes are used to control citrus root weevils. Citrus root weevils are a serious pest in Florida; they weaken citrus trees by feeding on the roots, threatening some 125,000 acres of citrus. Past control methods have relied heavily on chemical pesticides. ARS scientists at Orlando, Florida, working with a private company, have developed a way to use weevil-attacking nematodes as biological control agents. An integrated weevil control program including nematodes reduces pesticide applications from four to one per year. The nematodes became commercially available to growers in 1990 and are now being used as part of a weevil management program on nearly 40,000 citrus acres. Reduced use of pesticides, particularly in Florida's shallow soils, will help keep pesticides from entering into wells and ground water.

Preservation of tropical and subtropical plants of importance to U.S. agriculture. Since 1902, the ARS Tropical Agriculture Research Station (TARS), Mayaguez, Puerto Rico, has introduced, evaluated, preserved, and distributed economically important tropical and subtropical plants. Its collections comprise over 400 species and 116 genera of fruits, oil palm, root crops, banana, plantain, cereals, forage crops, bamboo, ornamentals, medicinals, and other specialty crops. Research involves breeding or selecting plants with disease resistance and high yield for the tropics and developing improved systems for better, more economical crop production. TARS also operates the Germplasm Introduction Research Unit on St. Croix, U.S. Virgin Islands, where large numbers of foreign sorghum and corn accessions are increased and evaluated under quarantine conditions so they may be released to breeders.

Guayule provides nonallergenic latex rubber. Many people, perhaps 500,000 individuals in the U.S. alone, are allergic to latex rubber made from rubber trees. Allergic reactions range from simple dermatitis to life-threatening anaphylactic shock. ARS scientists at Albany, California, and Phoenix, Arizona, have found that latex rubber from guayule shrubs, unlike latex from rubber trees, is nonallergenic. For this reason, guayule is an excellent source of latex for use in medical products; the latex can be readily removed from guayule plants by treatment with water. ARS scientists are also developing a simple extraction process for use on farms or by small local processors. This research shows that guayule is a source of medical rubber products, solving a serious health problem for many patients, while providing the southwestern U.S. with a promising new industry.

New cost-effective trap for Mediterranean fruit flies developed. ARS scientists at Gainesville, Florida, have developed a new cost-effective plastic trap with a novel and innovative dry synthetic lure for use in monitoring and controlling the Mediterranean fruit fly. The new trap is much cheaper and easier to use than the standard trap now utilized to trap Medflies; more importantly, by varying the

dose of the synthetic lure and other characteristics, the trap can be fine-tuned to capture more unmated females. Unlike existing traps that catch large numbers of nontarget flies, the new plastic trap is highly specific and thus shows great promise for monitoring Medflies and for eradicating or suppressing small populations of introduced flies. This trapping system will reduce the need to apply large amounts of insecticides to eradicate Medfly populations.

Disease-resistant wheat reduces fungicide use. Strawbreaker foot rot is a serious disease of wheat in the Pacific Northwest, reducing yields by 25 to 50 percent. In 1988, two wheat varieties with high resistance to strawbreaker foot rot were developed and released by ARS scientists at Pullman, Washington, with the cooperation of State scientists from Washington, Oregon, and Idaho. The Madsen and Hyak varieties have now been widely accepted by growers and are grown on an estimated 500,000 acres. This has resulted in reduced pesticide use and an estimated annual savings of over $7 million. Use of resistant varieties also allows early fall sowing, with greater vegetation cover and reduced soil erosion during the winter months.

Irrigation application technology reduces herbicide rates. Herbicide rates and recommendations have been established for a wide range of soil and environmental conditions utilizing hydraulic boom sprayer application. ARS scientists at Tifton, Georgia, have shown that rates of herbicides, insecticides, and fertilizers can be reduced by as much as 50 percent by utilizing irrigation application technology that maintains efficacy equal to conventional application technology. Irrigation application technology creates environmental conditions and coverage that result in more efficient activity. Maintaining efficacy with reduced application rates also reduces the potential for creating adverse environmental impact on crops, soil, and water. This technology also allows producers to reduce application costs while maintaining their present productive levels.

Resistance to cotton root-knot nematode is found. The root-knot nematode is a serious pest of cotton on light textured soils, and commercial varieties presently have no resistance. ARS scientists at Mississippi State University, have now developed germplasm lines that are highly resistant to the nematode. This was accomplished by combining two required resistance genes in the same plant. Since only two genes are required and germplasm lines containing these genes have been released to commercial breeders, it is expected that nematode resistant varieties will soon be commercially available.

A source of reduced saturated fat content in soybean oil has been found. The Food and Drug Administration recommends that vegetable oil used for cooking or in salads should contain no more than 7 percent saturated fatty acids. The amount of palmitic acid, the primary saturated fatty acid in soybean oil, is now about 11 percent. A cooperative ARS breeding program with North Carolina State and Purdue University scientists has produced a new soybean strain with only 4.5 percent palmitic acid. This trait, now being incorporated into commercial varieties by traditional breeding practices, will greatly enhance the nutritional quality of soybean oil.

Genetic markers identify immigrant populations of tobacco budworm and corn earworm. Unexpected and sudden immigrations of tobacco budworm and corn earworm into U.S. cropping systems make management of these pests very difficult. ARS scientists at Fargo, North Dakota, have completed genetic fingerprinting of selected tobacco budworm and corn earworm populations from the U.S. and Mexico and have identified population-specific genetic markers. These genetic markers will help pest control managers to identify origins of migrant insect pests and target reduction efforts at the source. This strategy will benefit growers of a wide variety of crops including cotton, corn, soybean, tomato, and tobacco.

Discovery of the gene that offers resistance to bacterial speck disease in tomato. Working cooperatively under the ARS plant genome research program, ARS and Cornell University scientists used molecular genetic mapping techniques to locate the gene(s) that confers resistance in tomato plants to bacterial speck

disease (Pseudomonas syringae). Gene transfer will reduce disease incidence in this economically important crop, thus helping producers to reduce production costs and achieve superior yields and improved tomato quality.

Use of herbicides for weed control is reduced. Common cocklebur is one of the most competitive weeds in soybean production, and farmers spend at least $100 million annually on its control. ARS scientists at St. Paul, Minnesota, have developed common cocklebur management systems that combine information on cocklebur emergence patterns with timely applications of reduced rates of herbicides. The researchers were able to reduce the amount of the chemical herbicide bentazon, needed to control common cocklebur by up to 88 percent without reducing soybean yield. This approach to controlling common cocklebur will reduce the cost of producing soybeans as well as reduce the quantity of herbicide released into the environment.

Soybean seed protein content varies with its position on the plant. Soybean meal is an important source of protein in animal feed and in some human diets. For this reason, an important objective in soybean breeding programs is to increase seed protein. ARS research at West Lafayette, Indiana, has found that seed protein content varies widely within individual plants. Protein is lowest in seeds at the bottom of the plant and becomes progressively higher in seeds toward the top of the plant. Seeds at the plant top average 11 percent more protein than seeds at the bottom, with variation as large as 46 percent in one variety. These new data show that a better understanding of the cause of variation in protein could lead to a more uniform, high level of protein in seeds throughout the soybean plant.

A simple treatment improves quality of leafy vegetables. Leafy vegetables sometimes have a bitter taste, especially with increasing age at harvest time. Studies by ARS scientists at Salinas, California, have provided a breakthrough in learning how to control bitterness and some other important quality factors. The quality of the produce, including increased beta-carotene content, is markedly improved by exposing the seedling plants to a short exposure of colored light before transplant. This treatment, which is still in the developmental stage, is expected to improve the quality and value of leafy vegetables, especially lettuce and spinach.

Efficient regeneration of transformed wheat plants. A major roadblock to the utilization of powerful new genetic engineering technologies has been the inability to efficiently regenerate transformed plants of major cereal grains, especially wheat. A dramatic advance has been made by Albany, California, scientists who developed a method to regenerate herbicide-selected fertile wheat plants. This technique results in the ability to identify transformed plants in as little as 75 days after bombardment. One or two transformed plants can usually be identified out of every 1,000 embryos bombarded. Other advantages of the technique are the ease of obtaining independent transformation events year-round and the use of standardized conditions and commercially available bombardment devices. A final advantage is that the technique is applicable to more than just the one variety used in the study.

The use of naturally occurring antagonistic organisms can reduce pesticide use. ARS scientists at Beltsville, Maryland, found that the amount of fungicide needed to control a disease of eggplant was reduced by 77 percent when the fungicide was combined with nondisease-causing fungi that interferred with the pathogenic fungi. Improved methods for maintaining the antagonist fungi were also reported. This method is being expanded to other crops to develop more environmentally acceptable control of plant diseases.

## RESEARCH IN ANIMAL SCIENCES

Current Activities: The current research program places primary emphasis on improving the efficiency of livestock, poultry, and aquaculture production. Major thrusts include improving the productivity of animals; assuring the quality and safety of animal products used as food for humans; and reducing losses due

to diseases, parasites, and insect pests. To accomplish these goals, new technological innovations are needed to preserve and effectively utilize animal germplasm; understand how specific genes improve production, reproduction efficiency, and animal product quality; enhance genetic resistance to diseases, parasites, and insect pests; improve techniques to rapidly diagnose, prevent, manage, or eliminate diseases, parasites, and insect pests; and detect and control microbial and chemical residue contamination in live animals and animal products. The research is designed to solve both short- and long-term, high priority national problems and to address the needs of action and regulatory agencies. Research is under way on changing the genetic makeup of animals and influencing reproductive efficiency; improving nutritional and genetic redirection of undesirable lipids in animal products; improving the conversion of feed to animal products; developing genetically engineered vaccines for protection against diseases, parasites, and insect pests; developing new, rapid, and accurate methods of disease diagnosis; improving the safety of animal food products; and developing integrated management technologies for insect pests and disease vectors.

Selected examples of recent progress:

Successful preselection of sex in livestock and humans. Technology to preselect the sex of livestock could save the livestock industry millions of dollars annually. A scientist at Beltsville, Maryland, has successfully developed technology to preselect the sex of livestock offspring that is currently being transferred to the livestock industry worldwide. This technology is being applied to prevent X chromosome-linked disease transmission in humans by the Genetics and IVF Institute, Fairfax, Virginia.

Injection of cuts of meat with calcium chloride consistently produces tender meat. Inconsistency in meat tenderness is one of the major problems facing the meat industry. To enhance tenderness, meat is normally aged (storage at refrigerated conditions) for 1 to 4 weeks. During this period, a number of changes occur that result in tenderization. ARS scientists at Clay Center, Nebraska, have determined that variation in the rate and extent of aging is responsible for variation in meat tenderness at the consumer level. The problem was solved by injecting cuts of meat with a 2.2 percent solution of calcium chloride at 5 percent by weight. The process, called calcium-activated tenderization (CAT), is effective in all cuts of meat regardless of species or sex. ARS scientists are working closely with industry to facilitate commercial application of this technology.

A new vaccine protects against calf cryptosporidiosis. *Cryptosporidium parvum* is a major cause of diarrheal disease in calves. *C. parvum* in agricultural runoff can contaminate water supplies and cause human disease. The ARS scientists at Ames, Iowa, have developed a vaccine that reduces or eliminates Cryptosporidium diarrhea and oocyst shedding in experimentally infected calves. A field trial is under way to evaluate the vaccine, and a commercial company has been contacted to develop this product for market. This vaccine can reduce direct economic losses to the U.S. cattle industry as well as reduce the threat to the environment and public health.

Molecular genetic map of the chicken has been established. Similar to mile markers on a highway map, the molecular genetic map being developed at East Lansing, Michigan, will indicate where important genes contributing to a trait reside in the chicken genome. The ever-expanding genetic map currently contains 28 linkage groups and over 220 genetic markers. Resource populations are being developed for application of the genetic map to identify genes involved in production and disease resistance. Once the genes are identified, poultry breeders will be able to produce superior birds, and it would be possible for researchers to elucidate the mechanisms involved in production and disease resistance.

Cattle germplasm with high breeding value for twinning has been released for industry use. Small increases in the reproduction rate have a major impact on

efficiency of beef production. A population of cattle with an average twinning rate of 30 percent with individual animals with breeding values above 50 percent has been developed through intensive selection, based primarily on ovulation rate of puberal heifers. This research, which was accomplished by scientists at Clay Center, Nebraska, provides the basis for implementing a twinning technology by the beef cattle industry. A twinning technology has the potential to increase efficiency of beef production by 25 percent in animals that produce twins in intensive production systems. Through a cooperative agreement with a commercial artificial insemination organization, semen from high breeding value sires and embryos from high breeding value cows are being made available to the beef cattle industry.

Honey bee strain released to the beekeeping industry. Parasitic mites, particularly the Varroa mite and the tracheal mite, have caused extensive losses to beekeepers since they were discovered in the United States in the mid-1980's. A honey bee strain, imported from Yugoslavia, was released to the beekeeping industry following extensive field evaluation for resistance to parasitic mites by the ARS scientists at Baton Rouge, Louisiana. The Yugoslavian bees are at least twice as resistant to parasitic mites as susceptible domestic bees. It is estimated that this honey bee strain could save beekeepers $2 per colony in tracheal mite treatments.

Genes directly injected into living tissues are functionally active. Heretofore, the introduction of new genes into animals has been achieved only by the laborious, inefficient procedure of producing transgenic animals. However, ARS scientists at Beltsville, Maryland, have developed a novel method of introducing foreign genes into tissues of animals. These findings could serve as the basis for development of new types of vaccines and unique gene therapy methods. Simply by injecting genes through the skin with a jet-injector, a device originally designed for vaccine inoculations, genes find their way into cells and become functionally active. This strategy was tested by injecting genes into muscles and mammary glands of mice and sheep. When tissue samples were collected 1 or 2 days later, low levels of proteins were detected that could only have been produced by the injected genes. Refinements of this approach may lead to significant improvements in the design of vaccines, provide a new means of targeting gene therapy to tumors, and offer an efficient approach to studying gene regulation.

Enhanced disease resistance in channel catfish reduces losses. Enteric septicemia of catfish is the most economically damaging infectious disease encountered in commercial catfish farming, causing losses estimated at millions of dollars annually. Research completed recently by Stoneville, Mississippi, in cooperation with Mississippi State University, indicates a potential to reduce channel catfish disease losses caused by E. septicemia. Catfish from three strains were exposed to E. septicemia bacteria and then monitored for survival. Results showed that fish from one of the strains had an average survival rate of 91 percent. Fish from the other two strains were considerably less resistant with an average survival rate of only 47 percent. This research shows the economic value from raising resistant strains of fish, as well as the potential for reducing disease losses through selective breeding.

Feeding strategies reduce methane from livestock. Methane has been implicated as a contributor to the buildup of greenhouse gases. Experiments conducted by ARS scientists at Beltsville, Maryland, showed that high-concentrate diets reduced methane produced by ruminal contents in vitro without reducing total fermentation. Increasing the amount of concentrate fed increased acidity which, in turn, reduced methane. Diets containing 50 percent or more forage responded with reduced methane from increased acidity, but were accompanied by reduced fermentation; such diets are not recommended. This research shows that high-concentrate diets minimize methane production and do not adversely affect animal performance, as long as ruminal pH is kept high enough to minimize acidosis problems.

A new diagnostic test for tuberculosis has been evaluated for use in cattle. Within the past 5 years, regulatory officials and livestock producers have noted a significant increase in the occurrence of tuberculosis in Texas cattle. The bovine tuberculin caudal fold skin test, used for decades to detect reactor cattle, requires expensive multiple handling and is difficult to use. Scientists at Ames, Iowa, have worked cooperatively with Federal and Texas regulatory officials to comparatively evaluate a new gamma interferon procedure for cell-mediated responses to tuberculosis. In an extensive field study, the two tests have been shown to provide nominally equivalent results for specificity and sensitivity. Further economic analysis and risk assessment of the new test may provide an economical and rapid complement or alternative to the currently used procedure for the control and eradication of tuberculosis in the United States.

Superior rams double lamb production. Use of rams with high mating capacity improves lamb production more than twofold while sustaining long-term genetic gains in the flock. Reproductive efficiency in domestic sheep is a problem not limited to females but also with a significant ram component that affects flock profitability. ARS scientists at Dubois, Idaho, classified rams by tests that screen for superior sexual behaviors. Selection for mating on the short-term produces a superior lamb crop, with more ewes giving birth in a shorter lambing season. Producers can use the technique to screen rams on the farm while benefiting through selection of superior rams for long-term, permanent genetic improvements.

Diagnostic kit for neosporosis in cattle. Neosporosis is a parasitic infection caused by a protozoan that was misdiagnosed as toxoplasmosis until 1988, when ARS scientists at Beltsville, Maryland, characterized Neospora caninum as a new species of pathogen. Collaborative studies with the University of California showed that Neospora was the most common cause of abortions in dairy cattle over a period of 6 years. Today, neosporosis abortions in cattle are recognized in at least 28 States. ARS scientists have developed a diagnostic kit, based on the indirect fluorescent antibody test, that is now commercially available to animal health professionals. The rapid and accurate diagnosis of neosporosis is extremely important to livestock producers, public health specialists, and veterinarians.

Swine chromosome 6 genomic library has been produced. ARS scientists at Beltsville, Maryland, have identified populations of pigs that exhibit superior carcass traits but that also have a genetic defect known as porcine stress syndrome. Pigs with this defect exhibit an increased likelihood of sudden death in response to stressors; however, they also exhibit superior lean meat content and decreased backfat depth when compared with other pigs. Genetic studies have mapped these traits to swine chromosome 6. In order to develop genetic markers that can define specific alleles of chromosome 6 genes that encode for the beneficial traits, chromosome 6 must be isolated. Laser-based flow cytometry has been used to display a clear pattern that separates chromosome 6 from a heterogeneous population. Laser-based sorting has recently been used to genetically map this chromosome. The goal is to provide microsatellite DNA that identifies genes associated with superior carcass traits of pigs.

Blood hormone is associated with increased litter size in swine. There is currently no reliable indicator that can be determined in the blood of male swine to predict litter size of their daughters. At Clay Center, Nebraska, recent studies with Chinese Meishan swine, a breed known for its large litters, determined that follicle-stimulating hormone concentrations were much greater in boars of this breed than in boars of conventional U.S. breeds. Additionally, in a population of crossbred swine that had undergone divergent selection for three generations, number of ovulations differed by two in the two selected groups. Blood concentrations of follicle-stimulating hormone were 29 percent greater in the females and males of the high ovulating group. Determination of follicle-stimulating hormone concentrations in boars would improve selection for leaner pork by minimizing any adverse effect on reproductive performance that can occur when boars are selected exclusively for meat quality.

Growth performance of shrimp fed different sources of dietary lipids. Lipids (fats) are indispensable macronutrients in shrimp diets, not only for their energy value, but also as sources of essential fatty acids, fat-soluble vitamins, sterols, and phospholipids. These compounds are vital to a wide range of life processes, and deficiencies could lead to poor growth, survival, and reproductive performance. In a 10-week feeding study, ARS scientists at Kanehoe, Hawaii, evaluated the nutritional value of seven dietary lipid sources and showed that both n-6 and n-3 fatty acids are dietary essentials for marine shrimp. However, lipids rich in n-3 fatty acids provided better growth, feed conversion, and survival than those rich in n-6 fatty acids. Menhaden fish oil, high in long-chain highly unsaturated fatty acids, promoted the best growth performance. This information is essential for the development of nutritionally balanced diets leading to better growth, reduced production costs, and increased income for shrimp farmers.

An inactivated vaccine for feeder calves and goats may provide protection against respiratory diseases associated with stress and shipment of livestock. Bovine respiratory diseases associated with shipment and other stresses of feeder calves cost the American beef cattle industry $400 to $800 million annually. An ultraviolet light-inactivated Pasteurella haemolytica vaccine has been developed and is being tested by ARS scientists at Bushland, Texas, to successfully control the most common bacterial cause of stress-related respiratory disease in feeder calves and goats. This vaccine may offer an inexpensive vaccine option to livestock shippers and to cattle feeders.

Modern-day broilers contain the genes needed to reduce fat deposition. The higher fat content of modern broilers suggests that genetic selection may have produced lines of broilers that lack the genes needed to produce a lean phenotype. ARS scientists at Georgetown, Delaware, produced indirect evidence that modern broilers do contain the genes necessary for a lean phenotype, but that suboptimal expression of these genes accounts for increased fat deposition. Experiments using an in vitro fat cell culture method showed that fat cells isolated from market-weight broilers can be induced to release more or less lipid by exposing them to selected hormones that cause changes in expression of fat cell proteins and that treatment of fat cells with glucagon decreased the expression of glucagon receptors. The glucagon receptor is a key cellular protein involved in fat deposition by broilers because it functions to inhibit lipid synthesis by liver cells and increases lipid release from fat cells. Studies are under way to develop a biotechnology-based approach to enhance expression of the glucagon receptor gene and thus enhance the ability of the bird's own glucagon to inhibit fat deposition in broilers.

Linoleic acid leads to new control for foulbrood disease of honey bees. American foulbrood and European foulbrood diseases cause losses to the beekeeping industry that exceed $8 million each year. Both diseases, which are found in all 50 States, infest and kill honey bee larvae inside the hive. Laboratory research at Beltsville, Maryland, has shown that linoleic acid--found in oils from peanuts, corn, soybeans, cottonseed, sunflower, and other vegetables--inhibited the growth of the two bacteria that cause European and American foulbrood diseases. This natural remedy poses no harm to the bees and will not harm humans. This new natural control for foulbrood disease will help ensure an adequate supply of honey bees for pollination of important agricultural crops.

Trace minerals lower fat and cholesterol levels in broiler chickens. Genetic selection for rapid growth has, over time, produced broilers that consume feed in excess of their needs for lean tissue growth. This excess feed energy is deposited as fat, creating a health risk for consumers of chicken. Trace minerals alter the secretion and biological actions of hormones and thus offer a nonhormonal route for redirecting nutrients in broilers. In recent studies at Georgetown, Delaware, ARS scientists showed that inclusion of vanadium or silicon in the diet of growing broilers reduced fat content of chicken by 10 percent. In addition, supplemental chromium was found to decrease cholesterol levels by 10 percent. Although these results are preliminary, further work is under way to determine if a combination of these trace minerals will produce larger

reductions in fat and cholesterol levels. If successful, and pending approval by the Food and Drug Administration, poultry producers will be able to improve the nutritional content of chicken using a trace mineral "package" that is acceptable to consumers.

Genes have been identified to mount protection of anti-Trichinella spiralis. Because of food safety issues, prevention of T. spiralis infections in swine is of major importance to the pork industry. Once this parasite has encysted in the pig's muscle, few drugs are effective, yet at this stage of the parasite it is infectious to humans. Scientists at Beltsville, Maryland, have determined that certain pigs can react against their encysted T. spiralis muscle larvae, resulting in a muscle burden that is 50 to 90 percent reduced. A minimum of two genes are necessary for pigs to mount such an anti-encysted T. spiralis response. Further genome mapping studies are under way to determine exactly which genes encode these responses. Potentially, swine producers at risk for this parasite could use breeding stock that bear the appropriate alleles at the genes that encode this responsive state to improve food safety of pork.

Polymerase chain reaction in poultry breeding has been applied. A DNA amplification procedure was developed by ARS scientists at East Lansing, Michigan, to determine whether roosters have one or two copies of a gene that is a molecular marker for the commercially important late-feathering trait. This trait enables commercial hatchery personnel to identify the gender of chicks at hatch. In selecting potential grandparent sires, breeders would prefer propagating homozygous males with two copies of this gene rather than heterozygous males that have only one copy of this gene. This procedure identifies those males with two copies of the desired gene shortly after hatch, thus eliminating the cost incurred in raising undesirable males to sexual maturity.

## RESEARCH IN COMMODITY CONVERSION AND DELIVERY

Current Activities: Increasing the competitiveness of U.S. commodities and products, while minimizing environmental impact and addressing safety needs of consumers, are paramount in determining postharvest research strategies. Developing new and expanded uses of agriculture commodities is also vital to the economy of U.S. farmers and rural communities, and to enhancing the competitive position of U.S. agriculture in world markets. New technological opportunities abound for achieving these market opportunities. Bioconversion, enzyme engineering, critical and supercritical processing, membrane separation and reaction, and extrusion all offer viable technological potential to meet the economic challenge of converting and producing agricultural commodities to new, safe, useful products.

To meet these challenges, ARS research expands knowledge of physical, biological, and chemical characteristics of food, feed, fiber, and industrial products. This research is important to the development and acceptance of new products, the elimination of trade barriers, and it is critical to commodity and product safety, quality, and value. Emphasis is placed on developing the technological basis for innovative industrial products that are benign to the environment and have sound commercial potential. Research is also being conducted to meet consumer demand for freshness and safety and to address regulatory agency needs for methods to detect product contamination.

Selected examples of recent progress:

Escherichia coli O157:H7 can be eliminated from meats by treatment with gamma radiation. Undercooked or raw meat has been linked to outbreaks of hemorrhagic diarrhea, kidney failure, and some deaths, particularly in children, due to the presence of E. coli O157:H7. ARS scientists at Wyndmoor, Pennsylvania, demonstrated that gamma irradiation of poultry meat or beef during processing can reduce the probability of this organism being present a thousandfold, using the currently approved minimum radiation dose for the treatment of poultry. Regulatory agencies and industry can use this information in the production of

meat free of this pathogen, thus benefitting the public by providing a safer food supply.

A genetic code for aflatoxin has been identified and targeted for elimination. Aflatoxin, a poison produced from the common molds Aspergillus flavus and A. parasiticus, causes severe losses in several major commodities including corn, peanut, cottonseed, and certain tree nuts. Scientists at New Orleans, Louisiana, have identified a "master switch" gene that triggers aflatoxin production in the particular mold that attacks the peanut. ARS scientists now have an efficient marker to search for new breeds of plants producing natural chemicals that specifically inhibit this master gene, thus eliminating aflatoxin contamination in the crops. In an alternative but related control approach, part of the genetic code responsible for aflatoxin was deleted to produce a harmless mold "cousin," which could be used to outcompete and eliminate aflatoxin-producing molds in crops.

Biodegradable cutlery. Totally biodegradable knives, forks, and spoons have been produced by injection molding of a starch-polyester composition. Under a CRADA with Zeneca Biological Products, which produces and markets a polyester (PHBV) made by a bacterium, ARS scientists have developed various starch-polyester compositions that can be made into cutlery and other 1-time use plastic items now made from petroleum. The cutlery is being evaluated by the U.S. Army Natick Laboratory for use on marine vessels, which soon will not be allowed to dispose of nonbiodegradable items into the sea. Incorporation of starch lowers cost, modifies properties, and expands market opportunities for articles made from PHBV. Commercialization by the cooperator of the starch/PHBV compositions is expected soon. A broad range of totally biodegradable and compostable plastics is being sought to replace petroleum derived plastics that occupy up to 25 percent of the volume of landfills.

Breakthrough is achieved in wheat transformation technology. The improvement of bread wheats by the modern technology of genetic engineering has been limited by the inability to produce healthy, fertile transformed plants. This obstacle was overcome by scientists at Albany, California. A reliable method has been developed for the rapid production of fertile transformed wheat plants. The procedure involves the use of a "gene gun" to transfer the genes into embryos of wheat seeds and tissue culture techniques to produce new plants. The development of a method for producing genetically altered wheat plants represents a major advancement in the field of genetic engineering of cereal crops. The efficiency and reliability of this transformation procedure will enable researchers to modify important characteristics of wheat, such as bread baking quality and pathogen resistance, and to introduce genes for production of specialty chemicals and pharmaceuticals. Once developed, these improved lines can be incorporated into breeding programs throughout the country.

Molecules to mozzarella: a dietary prescription for all ages. To meet the challenge of reducing dietary fat intake for preadolescents, scientists at Wyndmoor, Pennsylvania, developed a low-fat Mozzarella cheese for use in USDA's National School Lunch Program. Many available low-fat Mozzarella cheeses were rubbery and did not melt. To prevent a similar outcome, a holistic research design was developed incorporating computer modeling, sophisticated evaluations of texture and meltability, and computer-enhanced electron microscopy. The resulting Mozzarella cheese--with a 59 percent reduction in fat content and excellent meltability--has undergone successful preliminary testing in several Philadelphia schools. This combination of basic and applied research has also yielded a new understanding of fat-protein interactions and forms an information base to guide future developments in other low-fat cheeses and dairy foods, thus providing nutritious products with enhanced consumer acceptability.

Biorational control of Indianmeal Moth. Control of insect pests of stored products has historically relied heavily on the use of conventional pesticides. Insecticide resistance and the mandated elimination of some pesticides have stimulated the investigation of mating disruption as a management strategy for the Indianmeal moth, a major cosmopolitan postharvest pest. Scientists at

Gainesville, Florida, have utilized existing technology to demonstrate that moth mating and reproduction in treated warehouses were reduced more than 90 percent relative to untreated control storages. These findings clearly demonstrate the potential for exploiting this biorational pest management tactic.

New fumigants for citrus against Caribbean fruit fly from natural plant chemicals may replace methyl bromide. Methyl bromide will no longer be available for use as a pesticide in a few years. Allyl alcohol, allyl acetate, and allyl propionate were top candidates from among 24 natural plant chemicals screened as potential substitutes. These fumigants have strong insecticidal properties against larvae at low dosages with no residual odor or taste, are rapidly biodegraded, and are safe for the ozone layer. Further tests will include toxicity to eggs and larvae in infested grapefruit, guavas, and carambolas, and efficacy as aqueous dips and fumigants. A candidate chemical that proves efficacious and safe may replace methyl bromide for quarantine disinfestation use and facilitate continuation of international trade in subtropical fruits and citrus.

A naturally occurring antimicrobial protein reduces bacteria in beef. The protein, nisin, was tested by ARS scientists for its ability to reduce pathogenic and spoilage bacteria in beef. Bacterial cells were first added to pieces of lean and fat beef tissues, followed by the application of nisin using a research carcass washer. Surviving bacteria were counted before and again after refrigeration for 24 hours. Nisin on either tissue killed 99.7-99.9 percent of the cells. Some bacteria survived during the 24 hours of refrigeration, but nisin still suppressed their growth. The use of nisin spray in meat processing plants could help assure both the safety and shelf life of beef.

Tests to monitor and verify end-point temperature of meat products during cooking are critical to both regulatory and industry quality control personnel. Scientists at Athens, Georgia, are working in cooperation with the Food Safety and Inspection Service and private companies to provide rapid, accurate and economical tests to indicate the minimum internal temperature of meat products reached during cooking. The tests can be used immediately after products are cooked or after frozen storage. Two enzymes that change significantly in the cooking range for meat (155 to 175 degrees) appear to be suitable as "markers" that can be used to develop tests for both groups: the tests can be used by regulatory personnel as screening procedures at import stations and during cooking and by industry personnel as a Hazard Analysis Critical Control Point procedure to ensure adequate cooking and to eliminate hazards of bacterial food poisoning.

Novel coatings increased shelf life and quality of fresh fruits and vegetables. Even with refrigeration, the shelf life of fresh produce is limited by shrinkage due to water loss and overripening. Scientists at Winter Haven, Florida, have devised two new coating technologies to address these problems. Nature-Seal, a recently patented edible coating, retards ripening of many fresh fruits and vegetables. This technology has been licensed to EcoScience of Worcester, Massachusetts, for use on papayas and limes. The other coating technology utilizes emulsions of natural waxes combined with currently used glossy coatings for citrus. These bi-layer coatings provide the necessary high gloss required by the industry, while greatly reducing the shrinkage that shortens shelf life and appearance.

Automatic surveillance of insects in grain storage facilities. Insect infestations in stored agricultural commodities result in annual losses of millions of dollars. Traditional practices for detecting and quantifying infestation are labor-intensive; involve visual inspections of grain samples; are insensitive to low insect densities; and do not provide continuous or thorough monitoring. Scientists at Gainesville, Florida, have developed a system to monitor for the presence of insects in grain storage bins using infrared technology. The detection activities of probes are continuously sent to a central computer, which indicates when and where infestations are developing.

By providing early detection of infestations, managers can initiate appropriate control measures as needed.

Bioluminescent Adenine Triphosphate measurements provide a rapid test for microbial contamination on carcass surfaces. The rapid detection of fecal contamination on carcasses is a major concern of the meat industry and regulatory agencies. Both groups are striving to implement rapid tests in overall food safety/quality programs such as Hazard Analysis of Critical Control Points (HACCP). ARS scientists have determined that measurement of microbial ATP provides a rapid indication of fecal contamination with greater levels of fecal contamination being associated with higher levels of microbial ATP. The assay responds similarly on lean or fat areas of the carcass. To date, the sensitivity is about 10,000 bacteria per square centimeter and the test takes less than 1 hour. Ongoing research will reduce the assay time and increase sensitivity. This rapid test should indicate if a carcass has been contaminated and if reconditioning methods were effective.

Starch-natural gum fat substitute. Scientists at Peoria, Illinois, have discovered a new product based on starch that could find widespread use in the food industry. Consisting of 95 percent starch and 5 percent of a natural gum such as guar or xanthan, these materials function as thickening agents and as fat substitutes in foods. Products are prepared by suspending a mixture of starch and gum in water, passing the mixture through a continuous steam jet cooker (to dissolve and to partially degrade the starch and gum), and finally drum-drying the resulting solution. Unique products have been prepared by varying the type of starch and gum used in the formulation. A U.S. patent on this technology has been filed, and patent protection in foreign countries is being sought. Pilot plant production and large-scale testing of these products of this type are currently being carried out under a Cooperative Research and Development Agreement (CRADA) with a company specializing in food additives. This company has requested a license for the technology and has received approval of the trademark JETEX.

Wheat flour particle size distribution is a supporting method for wheat classification. The classification of U.S. wheats could be improved by applying additional objective tests to more effectively differentiate hard and soft wheats. Scientists at Fargo, North Dakota, measured the particle size distribution of hard and soft wheat flours by laser diffraction. Subsequently, they were able to predict flour particle size by near infrared reflectance spectroscopy based on reference values previously determined by laser diffraction. Both methods clearly differentiated hard and soft wheat flours. Information on flour particle size for different wheat types could provide additional support to the U.S. wheat classification system and could be used by commercial millers and bakers for establishing flour specifications for certain end products.

Agricultural byproducts absorb toxic and other regulated components of wastewaters. In parallel projects at Peoria, Illinois, and New Orleans, Louisiana, ARS scientists are solving problems of wastewater cleanup with low-value agricultural residues. Through the work at Peoria, fibrous byproducts from soybean, sugar beet and sugar cane processing can be turned into dye scavengers by a simple and inexpensive chemical treatment. At New Orleans, soybean and cottonseed hulls and defatted rice bran were shown to absorb up to 96 percent of zinc, chromium, cobalt, copper, or nickel salts from common wastewaters. After use, these byproducts could be disposed of either through composting and returning the product to the soil, controlled incineration, or through landfilling. Both locations are collaborating with industrial waste treatment companies to evaluate the commercial potential for these findings.

Conversion of carbohydrates in orange peel to ethanol. Orange juice production generates large quantities of peel and similar byproducts. These residues are dried and marketed as a cattle feed, but with marginal economic returns. Scientists at Winter Haven, Florida, have developed processes for enzymatic hydrolysis of carbohydrates in orange peel to soluble sugar and removal of

antimicrobial compounds in these hydrolysates. The orange peel hydrolysates were successfully fermented to ethanol by both yeasts and recombinant bacteria provided by the University of Florida. A preliminary economic evaluation of the overall process indicates that enzymatic hydrolysis of orange peel and conversion of the resulting sugars to ethanol may provide economic benefits to the citrus processing industry.

Bacteriophage controls bacterial postharvest diseases of fruit. The bacterium Erwinia ananas causes brown spot of honeydew and muskmelon, and other bacteria in this group cause serious economic losses in many crops. At Weslaco, Texas, phages--naturally occurring viruses which attack and kill bacteria--were isolated from the environment using routine lab methods. All of the E. ananas strains were found to be susceptible to at least one phage isolate. The phages have been found to reduce inoculum density (bacterial populations) in preliminary tests. Use of phages to control brown spot outbreaks would reduce losses to shippers and growers and would set a precedent for the use of phages to control other bacterial diseases, both field and postharvest.

Vegetable oil derived ink vehicles are exceptionally biodegradable. Technologies that improve the environment by eliminating volatile organic compounds (VOC's) are a high priority. Lithographic (offset) newspaper ink (consisting of 100 percent soy or other vegetable oils and pigments), invented by scientists at Peoria, Illinois, is formulated without VOC's. Recent studies have demonstrated additional environmental advantages for this technology over those used for commercial newspaper ink vehicles (mineral oil and petroleum resin or vegetable oil and petroleum resin dispersants or pigment carriers). The ARS scientists have found that the 100 percent soy oil vehicle biodegrades more quickly and completely than the commercial vehicles. In a standard test for biodegradation, after 2 weeks, the vehicle from 100 percent soy oil was 90 percent degraded; a vehicle similar to current commercial soy inks (made of soy oil and petroleum resin) was 60 percent degraded, while a typical all-petroleum vehicle was only 20 percent degraded.

Toxic and/or flammable solvents in analyses for mycotoxins can be eliminated. The detection of aflatoxin contamination in grains has been traditionally accomplished by extracting the toxins from the grain matrix with copious amounts of organic solvents, followed by chromatographic analysis of the extract. Scientists at Peoria, Illinois, have developed a new method for the rapid removal of aflatoxins from field corn using an environmentally compatible compound, carbon dioxide. The method reduces the amount of toxic and flammable solvents used in the traditional isolation procedures and yields results equivalent to an organic solvent-based extraction procedure. This carbon dioxide-based technique overcomes many of the hazards formerly associated with the use and disposal of toxic and/or flammable solvents in a laboratory environment.

Treatment developed to meet Japanese quarantine requirements for U.S. apples. Market access for U.S. apples in Japan has been limited by a Japanese import quarantine on codling moth and lesser appleworm insects. A team of scientists from Yakima and Wenatchee, Washington; and Fresno, California, developed a two-component treatment to meet Japan's import quarantine requirements for "Red Delicious" and "Golden Delicious" apples. Confirmatory tests required by the Japanese government have been completed and tentatively accepted by Japan. It is anticipated that the new market in Japan for U.S.-produced apples could reach one million cartons per year, with an estimated value of $35-$40 million or more.

New passion-fruit clones selected with ability to survive freezing weather and retain ripe fruit on vine. Freezing weather at the northern end of the Florida citrus belt periodically kills or severely injures fruit trees, indicating the need for a more cold-hardy fruit crop. At Byron, Georgia, hybrid-passion fruit vines that combine genes from a cold-hardy species with a common tropical American passion-fruit withstood the cold of the March 1993 snowstorm and hard freeze; the vines resumed normal growth in spring 1993. These plants make it possible to develop varieties that can be grown in zones with sudden freezing weather, to the advantage of farmers living in those areas. Passion-fruit are

normally harvested after the ripe fruit falls to the ground, an expensive process that subjects fruit to early decay. A selection made at Miami, Florida, shows a new gene that lets fruit ripen on the vine for 6-18 days after maturity, thus affording easier, lower-cost methods of harvest possible.

## RESEARCH IN HUMAN NUTRITION

Current Activities: This research is directed toward studying the effects of diet on healthy human volunteers of all ages. The objective of this research is to define nutrient requirements for pregnancy, growth and health of children, and nutrient function in the protection from disease of adults and the elderly. Particular emphasis is placed on the needs of infants at risk, protective factors in foods, dietary fat and carbohydrate needs to reduce risk of disease, and vitamin and mineral needs of individuals. The ARS chairs the Human Nutrition Coordinating Committee under the USDA Human Nutrition Policy Committee. This policy committee, composed of representatives from ten agencies, has an active liaison with the Nutrition Coordinating Committee of the National Institutes of Health.

Selected examples of recent progress:

Dietary folic acid intake is needed to reduce the risk of heart disease. Individuals with abnormally high levels of blood homocysteine, a naturally occurring amino acid, are at increased risk for developing heart disease. High levels of homocysteine can occur due to a deficient dietary intake of folic acid, a B vitamin found in green vegetables and some fruits. Scientists at San Francisco, California, and at the UCLA School of Public Health conducted a controlled study in which dietary folate equivalent to 12, 100, and 220 percent of the current Recommended Dietary Allowance (RDA) were fed to 10 healthy men to determine the folate intake that would prevent elevated homocysteine. Nearly half of the men developed high homocysteine levels after 4 weeks on the low folate intake. Some high levels persisted even after 2 weeks on the 100 percent RDA intake, but all decreased to normal within 9 days when the high intake was fed. The results indicate that the current RDA for folic acid may not be sufficient to prevent elevated homocysteine levels that increase the risk of thrombotic type heart disease.

Genetic diversity in patterns of fat deposition in humans. The amount and distribution of body fat, especially abdominal visceral fat, is a significant factor in health maintenance. Of major concern is the effect of weight reduction programs on the site of fat loss and the resulting effect on body composition. Scientists at Beltsville, Maryland, found significant differences in the amount of visceral adipose tissue in black and white women but no differences between binge and nonbinge eaters. Use of computerized tomography to quantitate the total amount and distribution of fat in the body allowed the scientists to follow changes in fat distribution during a 6-month weight reduction study. The results may explain the differences in morbidity and mortality between black and white women and are of particular benefit to African-American women.

Differences in calcium metabolism may reveal why African-Americans have higher bone mass than whites. Studies have revealed that African-Americans and Mexican-Americans have greater bone mass and less osteoporosis than European-Americans. ARS investigators at Boston, Massachusetts, examined healthy women and compared their fractional calcium retention and production of the calcium-regulating hormones during periods of high and low calcium intakes. African-Americans had higher levels of vitamin D than European-Americans on both diets and a greater increase after calcium restriction. These findings raise the possibility that African-Americans have a lower excretion of vitamin D, which may account for their higher levels of the vitamin and more favorable bone status. This information may prove to be important in establishing the dietary requirements for calcium and vitamin D in older adults.

Bioelectrical impedance spectroscopy (BIS) for monitoring fluid volume changes during pregnancy. Changes in body composition reflect changes in nutritional status and, often, in health status. Body composition measurements may be affected and give erroneous results by changes in the body's total water volume, specifically the extracellular fluid volume. In healthy individuals these two fluid compartments are tightly controlled; however, in cases of nutritional compromise or ill health, extracellular fluid will increase the total body water volume. ARS researchers at San Francisco, California, and Houston, Texas, cooperated with scientists of the University of California at Berkeley, in the use of the BIS technique to noninvasively measure changes in these fluid volumes of women before, during, and after pregnancy. The BIS technique was compared with laboratory isotope tracer methods and found to give equivalent results. This noninvasive BIS technique shows great promise for the quick, accurate, and noninvasive assessment of body fluid changes and for enhanced nutritional and health status.

Trans fatty acids compared with saturated fatty acids in effects on blood lipids. Vegetable oil processing involves partial hydrogenation, a chemical process that leads to the formation of trans fatty acids that have been suggested to carry a risk of cardiovascular disease. In a study at Beltsville, Maryland, trans fatty acids caused plasma total and LDL-cholesterol (bad cholesterol) elevations similar to, but no greater than, a diet with equally high levels of saturated fatty acids. At levels of trans-intake equal to the average intake in the U.S. diet, there were only minor effects on HDL-cholesterol (good cholesterol) compared with a highly desirable diet having high levels of naturally occurring unsaturated fatty acids. Thus, partially hydrogenated vegetable oils may continue to be consumed in moderation as part of a healthy, fat-controlled diet. Results of this study are important to consumers, farmers, and manufacturers in the oilseed industry who desire to produce healthy foods.

Plant sources in the U.S. diet provide 75-85 percent of needed omega-3 fatty acids. Linoleic and linolenic acids are the predominant polyunsaturated fats in the U.S. diet. Animal studies have indicated that a balance between omega-6 and omega-3 essential fatty acids in dietary fats is critical to good health. Research was conducted to determine if animal data accurately reflect the metabolism of these fatty acids in human subjects; to conclude if ratio or amount of these fats in the diet controls the balance; and to determine if a normal U.S. diet contains sufficient omega-3 fatty acids to meet estimated requirements. Human subjects were placed on diets containing different amounts of polyunsaturated fats for 2 weeks. The results indicate that animal data are a partial substitute for human data; that the amounts of the omega-3 and omega-6 fatty acids in diet are more important than the ratios; and that the amount of linolenic acid in the U.S. diet provides 75-85 percent of the omega-3 fatty acids estimated to be needed in adult diets.

An indicator of copper status is identified. Inadequate copper status may contribute to the occurrence of ischemic heart disease in humans. However, confirmation of this suspected relationship has been constrained by the lack of a method to discriminate between adequate and inadequate copper status. ARS scientists at Grand Forks, North Dakota, have discovered that the copper-dependent enzyme cytochrome C oxidase in platelets (a cell found in blood) is a sensitive indicator of copper status. This new information may be pivotal in establishing whether an inadequate intake of dietary copper is a major contributor to the occurrence of ischemic heart disease and showing that copper is an important nutritional concern for U.S. citizens.

Stearic acid, a component of meat, promotes iron utilization. Iron deficiency is a significant nutritional problem worldwide. Identification of the factor in meat that promotes iron absorption and utilization in humans would help in making recommendations to alleviate this deficiency. ARS researchers at Grand Forks, North Dakota, have obtained evidence that stearic acid (a fatty acid found in meat, especially beef) is such a meat factor. In comparison tests with safflower oil, stearic acid--added to the diet of iron-deficient dogs--doubled radioiron absorption and significantly increased the movement of iron in the blood and the

production of red blood cells. Thus, while red meat supplies iron, it also contains a substance that enhances iron utilization by the body. People who include red meat in their diets are, therefore, observing a dietary practice that is important in preventing iron deficiency.

Long-term care for the elderly. The present system of providing and paying for long-term care is fragmented and confusing. ARS family economists at Beltsville, Maryland, reported that over eight million elderly Americans will need some type of long-term care by the year 2000. To help with their needs, numerous public programs, particularly Medicaid and Medicare, have been developed and expanded. Public programs paid for 50 percent of nursing home care and 74 percent of home health care in 1990. The recent availability of long-term care insurance policies through private companies has not yet had a big effect on long-term care since only 3 percent of the elderly had policies by late 1991.

Girls need more calcium at a young age. Puberty is recognized as a period of maximal growth and bone formation. As much as 97 percent of total body calcium may be accumulated in girls before they are 16 years of age. At Houston, Texas, ARS scientists measured the rate of calcium deposition in bone and the size of the exchangeable calcium pool in bone in 50 girls, ages 5 to 16 years of age. The lowest bone calcium deposition rates were found in the girls who were more than 24 months postmenarche. Current recommendations for calcium intake in children, however, do not suggest an increased intake until 11 years of age--well after the onset of puberty in many girls. Furthermore, it is unlikely that increasing calcium intake postpuberty would significantly increase bone calcium deposition rates, and hence, density. The results suggest that dietary patterns that will promote mineralization in girls should be encouraged throughout the early/midpubertal period.

Folate, vitamin B12, and vitamin B6 status are associated with plasma homocysteine in older Americans. Recent studies have demonstrated associations between some cardiovascular and neuropsychiatric diseases and elevated levels of homocysteine, a nonprotein forming amino acid. While some cases of hyperhomocysteinemia may have a genetic basis, some data have indicated this condition may be attributed primarily to nutritional status. ARS scientists at Boston, Massachusetts, examined survivors (aged 67-96 years) from the original Framingham Heart Study population. One-quarter of the people had higher than normal homocysteine levels and two-thirds of those could be attributed to low or marginal status of folate, vitamin B12, and/or vitamin B6. A strong case can now be made for the prevention of the marginal deficiencies of these vitamins, common among older people, as they may be linked to the risk of cardiovascular disease, the leading cause of death in this population.

Low dietary carotene increases oxidative damage. Eating foods high in carotenes (such as carrots, squash, and tomatoes) is associated with reduced risk of getting certain cancers. Scientists have speculated that carotenes might protect us from cancers by preventing oxidative damage, but the only established role of carotenes in humans is to serve as sources of vitamin A. ARS scientists at San Francisco, California, have completed a study in which a diet low in carotenes (but with adequate vitamin A) was fed to healthy adult women for 10 weeks; the same diet with added carotenes was then fed for 4 weeks. Oxidative damage increased while the women were fed the low carotene diet, then decreased after they were given carotenes. These results suggest that carotenes may form an important part of the antioxidant defense system that protects against oxidative damage, a known risk factor for cancer.

Moderate alcohol consumption linked to hormone changes in women. Changes in the exposure of breast tissue to estrogen and other hormones may be one of the key processes by which diet affects the risk of developing breast cancer. Several dietary factors have been shown to affect blood estrogen levels. The potential role of alcohol consumption has been a prominent consideration in the etiology of breast cancer and is particularly important because it is a risk factor that can be modified. Studies by ARS scientists at Beltsville, Maryland, have shown that moderate alcohol consumption increased estrogen and other hormone levels in

premenopausal women consuming a controlled diet. Increases in hormones occurred in various phases of the menstrual cycle but were especially prominent around the time of ovulation. Thus, increased risk of breast cancer due to moderate alcohol consumption may be related to increased exposure of breast tissue to estrogen.

A simple strategy improves weight gain in nursing low birth weight infants. Low birth weight infants fed their mother's milk often gain weight at a lower rate after birth than the rate of gain in utero. The low rate of weight gain may result from a limited intake of nutrients, despite human milk fortification with added protein, minerals, and carbohydrates. The lipid content of hindmilk is known to be 2 to 3 times greater than that of foremilk. To enable weight gain equivalent to in utero gains, human milk was fortified with its hindmilk fraction to increase the endogenous lipid content. When infants were fed their mother's milk fortified with the hindmilk fraction, their weight increased significantly; the increment in fat concentration of the hindmilk was directly related to the increase in the rate of weight gain in all infants. This simple lactoengineering technique has great potential for supporting weight gain in low birth weight infants.

Improving iron and zinc content of vegetables for human consumption. Iron deficiency anemia is surprisingly widespread in the U.S., especially among young pregnant women. The problem is complex, with too little iron in the diet and too little of the iron that is eaten being absorbed by the body. ARS scientists at Ithaca, New York, have identified the factors directly limiting the uptake of iron from soil into plants. They have also identified an essential amino acid that increases the efficiency of zinc absorption by the body. This amino acid is normally present in grains, but can be increased by plant breeding. This research increases the possibility of breeding crops that contain greater amounts of essential mineral nutrients, with better availability for absorption. This research has a direct effect not only on human nutrition in the U.S., but also throughout the world.

Oils rich in either polyunsaturated or monounsaturated fatty acids can be substituted for saturated fatty acids as part of a cholesterol-lowering diet. The debate continues as to whether fat in the diet should be relatively high in monounsaturated or polyunsaturated fatty acids. ARS researchers at Boston, Massachusetts, tested 15 middle-aged and older adults with high low-density lipoprotein cholesterol (LDL-C) concentrations. The test participants received low-fat diets in which two-thirds of the fat calories were given either as canola, corn, or olive oil. Plasma cholesterol and LDL-C levels declined in each group, but the change was greater with canola and corn-oil diets. Although differential effects were seen after the consumption of these three oils in some plasma lipid measures, none of these oils had a significant advantage in terms of altering the overall lipoprotein profile. Oils rich in either polyunsaturated or monounsaturated fatty acids can be used to substitute for saturated fatty acids, when there is sufficient linoleic acid.

Copper deficiency impairs the ability to dissolve blood clots. Thrombosis, or the presence of a blood clot blocking a blood vessel or formed in a heart cavity, is a contributing factor to coronary heart disease. Blood clots in other critical organs also can cause death or other pathological consequences. Researchers at Grand Forks, North Dakota, have found that copper-deficient mice have an impaired ability to dissolve blood clots. This finding suggests that inadequate copper nutriture can contribute to the development of thrombotic lesions associated with coronary heart disease; this is further evidence that consuming a diet adequate in copper is helpful for maintaining healthy hearts and blood vessels and preventing clotting disorders.

Improved in vitro method for assessing iron bioavailability. Iron deficiency anemia is generally considered the most widespread nutritional deficiency in the U.S. This is due, in part, to the fact that only 5 to 10 percent of dietary iron is bioavailable (available for absorption and utilization). Improvement of iron bioavailability has been hampered by poor understanding of the factors that regulate iron absorption. ARS scientists at Ithaca, New York, have developed a

model system for estimating bioavailability. The system involves simulated digestion of a food or a meal followed by measurement of iron uptake by intestinal epithelian cells grown in single-layer cell cultures. This model should prove very useful in improving our understanding of the factors that limit iron bioavailability and could provide an inexpensive means of screening foods and/or meals for iron bioavailability. Improved knowledge of the factors limiting bioavailability and an inexpensive screening method would contribute to a reduction in the incidence of iron deficiency anemia.

Measurement of total dietary fiber in fruits and vegetables is simplified. Dietary fiber is a component of many foods--especially fruits and vegetables--that may reduce the risk of cardiovascular disease and certain cancers. Data on the fiber content of foods must be easy to measure as well as accurate and precise. Scientists at Beltsville, Maryland, have developed simplified procedures for measuring total dietary fiber in fruits and vegetables. In most foods, these procedures in the past have required several tedious and laborious steps to remove such components as starch and protein before fiber can be determined. Since many vegetables and most fruits contain little or no starch, those steps designed to remove starch were eliminated from the fiber determination. The resulting method is shorter, cheaper, and produces less hazardous chemicals. This methodology will be very useful to commercial analytical laboratories and commercial laboratories in fulfilling the requirements of the Nutrition Labeling and Education Act.

## RESEARCH IN INTEGRATION OF AGRICULTURAL SYSTEMS

Current Activities: The solution of important national problems faced by agriculture requires the integration of components of research from all areas of the agricultural and natural resource system. These include soils, water, climate, plants, insects, diseases, animals, and people. A primary objective of systems research is to package research results into products that aid or improve the timeliness and accuracy of decisions made by managers of agricultural systems and their impact on society as a whole. Systems research can result in lower input costs, better quality products, more efficient resource use, reduced environmental impact, and improved sustainability of agricultural production systems to meet long-term societal needs.

Systems research teams are typically composed of scientists from several disciplines and are often stationed at more than one location. Team members are linked together through national information networks to share concepts and databases required to build models. Mathematical models are one of several systems tools that can serve as surrogates for the real system on which experiments can be performed to estimate the system's response over time to alternative environments or management practices. It is usually not possible to perform such experiments on the real system because it is too costly, or requires too much time to obtain the results. The accuracy with which the models represent the real systems is tested through validation experiments. Validated models serve as predictors of system performance and can, therefore, be used in the decisionmaking process as tools to estimate how a system can best be managed to achieve desired goals.

Selected Examples of Recent Progress:

A sensor that checks organic matter and moisture levels in soil has been redesigned to apply herbicides. Precision farming requires accurate methods of sensing soil properties so that variable rates of herbicides can be applied. The tractor-mounted sensor bases its measurements of organic matter and moisture on the amount of light reflected by the soil, providing information in seconds and permitting variations in herbicide rates, depending on need. The redesigned sensor is entirely self-contained; the original sensor, developed by an ARS engineer and Agmed, Inc., was slower and required a separate computer. ARS shares the patent for the original sensor with Agmed. Precision farming

techniques are being evaluated in Missouri at the Management Systems Evaluation Area water quality site and on other farms.

Land use planning tool for addressing multiple, conflicting criteria is nearing reality. Agricultural and other land use planners need to consider how numerous factors relate to and interact with each other. In some situations, these factors relate to economically and socially acceptable food and fiber production while enhancing the environment. Scientists have developed a prototype of a computerized tool that uses natural resources databases and simulation models, including those pertaining to agriculture and economics, to place rational, repeatable values on many factors under consideration. With this tool, pros and cons of alternative land management approaches may systematically be weighed against each other while at the same time taking into account the differences in opinion among diverse interest groups.

Crop condition reports associated with Midwest floods have been developed from weather satellite data. Crop condition reports are used extensively by the USDA to assess the effects of droughts, floods, and other natural disasters on the farm economy. Traditional ground-based surveys are expensive and often impractical. The products of this research, developed from spectral data provided by NOAA's weather satellites, permit more efficient monitoring of crop conditions. Plant development and vigor are monitored using a greenness vegetation index. A biweekly map of comparative crop condition is developed by comparing the index for the current year with the long-term "normal" condition. This approach was used to assess the effects of the 1993 flooding in the Upper Mississippi Valley on the affected area and on crop damage. Information generated from the satellite data was used by the Agriculture Statistics Board and the Office for Economic Analyses to qualitatively assess crop conditions in the flooded areas from the August, September, and October reports.

Image-integrated computer cataloging system is developed for maize germplasm. Until recently, techniques for measuring morphological features of maize ears and kernels were unwieldy and labor intensive; e.g., visual measurement, hand-recording, photographing, and storing in cabinets. ARS scientists at Ames, Iowa, have now developed a computer imaging acquisition system for providing uniform illumination and analysis. The computer images and software are being integrated to facilitate documentation and retrieval of maize images and measurement data. With suitable modifications, the process and techniques can be applied to other types of germplasm.

The cotton management expert system is integrating outputs of the production and insect models in a more comprehensive system. The cotton production computer decision model considers effects of a growing spectrum of crop varieties, climate and soil factors to predict yields based on management of these factors. However, it has become increasingly apparent that cotton yields are commonly reduced significantly by insect pests. To estimate this reduction the "rule based Wholistic Insect Management System (rbWHIMS) has been developed and is now being integrated into the cotton production model to produce an expanded expert system in which the best coordinated sets of management practices can be identified. This model and expert system is undergoing continual evolution based on data from research headquarters at Mississippi State, and about 500,000 acres of cooperators' cotton lands where their performance is being evaluated.

Development of an expert advisory system for integrated management of wheat diseases. A computerized system for integrated management of wheat diseases was developed for the Pacific Northwest (PNW) by ARS scientists in Pullman, Washington. The program is referred to by the acronym "MoreCorp" (Managerial Options for Reasonable Economical Control of Rusts and Other Pathogens), and is designed to provide various disease management options in different agronomic zones of the PNW. The system is based on more than 30 years of research on epidemiology and control of wheat diseases and recent technological advances in the use of computers. MoreCrop predicts diseases based on cultivar characteristics, prevailing weather, geographical regions, agronomic zones, crop managerial practices (i.e., crop rotation, tillage method, irrigation methods,

planting date, and fertilizer application), crop history, and disease history. MoreCrop can be adapted for use in other regions of the world and can serve as a prototype in developing a total, sustainable wheat management program. The knowledge used for developing the system has prevented major disease epidemics in the past and multimillion dollar losses.

Technology to utilize Geographical Information System (GIS) and Geographical Position System (GPS) for site specific farming has been developed. Since most farm fields are not homogeneous and water and chemicals are normally applied at constant rates this normally results in too much being applied in some areas and not enough in others. Too much pesticide and fertilizer may cause leaching and ground water contamination and too little causes inadequate pest control and reduced crop yields. ARS engineers have developed technology that will determine yield variability within a field on a realtime basis using a global positioning system combined with on-board weighing devices. The data are put into a geographical information system containing a variety of data about the soil, crop and pest populations that will be used to control seed population and chemical inputs during the next production cycle.

Expert system for management of insect pests in stored grain. An expert system for stored grain insect management was tested in an ARS pilot project. Over a three-year period, 36 bins of wheat were sampled for insects in Oklahoma and Kansas. The expert system was 88 percent accurate in predicting when bins would or would not become infested with insects. The computer program, called stored Grain Advisor, used mathematical models to predict insect population dynamics. Whenever possible, it emphasizes the use of non-chemical methods to inhibit insect growth, such as cooling of the grain with aeration fans. In many cases, the system demonstrated that grain can be stored safely without the use of synthetic chemicals. Farmers using this system can make better management decisions, resulting in higher quality grain, reduced insecticide usage, and less storage risk.

## AGRICULTURAL RESEARCH SERVICE

Buildings and Facilities:

For acquisition of land, construction, repair, improvement, extension, alteration, and purchase of fixed equipment or facilities as necessary to carry out the agricultural research programs of the Department of Agriculture, where not otherwise provided, [$32,743,000] $25,700,000, to remain available until expended (7 U.S.C. 2209b): Provided, That hereafter, facilities to house bonsai collections at the National Arboretum may be constructed with funds accepted under the provisions of Public Law 94-129 (20 U.S.C. 195) and the limitation on construction contained in the Act of August 24, 1912 (40 U.S.C. 68) shall not apply to the construction of such facilities: Provided further, That funds may be received from any State, other political subdivision, organization, or individual for the purpose of establishing any research facility of the Agricultural Research Service, as authorized by law.

## AGRICULTURAL RESEARCH SERVICE

## BUILDINGS AND FACILITIES

| | |
|---|---|
| Appropriation Act, 1994 | $32,743,000 |
| Budget Estimate, 1995 | 25,700,000 |
| Decrease in Appropriation | -7,043,000 |

### SUMMARY OF INCREASES AND DECREASES
(On basis of Appropriation)

| Facilities | 1994 Estimated | Program Changes | 1995 Estimated |
|---|---|---|---|
| Arkansas: National Rice Research Center, Stuttgart | $3,828,000 | $-3,828,000 | -- |
| California: U.S. Horticultural Crop and Water Management Research Laboratory, Parlier | 2,630,000 | -2,630,000 | -- |
| Western Regional Research Center, Albany | 1,161,000 | +4,439,000 | $5,600,000 |
| D.C.: U.S. National Arboretum | 500,000 | -500,000 | -- |
| Florida: Horticultural Research Laboratory, Ft. Pierce | 2,900,000 | -2,900,000 | -- |
| France: European Biological Control Laboratory, Montpellier | -- | +2,600,000 | 2,600,000 |
| Illinois: National Center for Agricultural Utilization Research, Peoria | -- | +4,300,000 | 4,300,000 |
| Iowa: National Swine Research Center, Ames | 4,524,000 | -4,524,000 | -- |
| NADC-Necropsy/Incinerator, Ames | 3,900,000 | -3,900,000 | -- |
| Louisiana: Southern Regional Research Center, New Orleans | 2,667,000 | +533,000 | 3,200,000 |
| Maryland: Beltsville Agricultural Research Center, Beltsville | a | +5,000,000 | 5,000,000 |
| Mississippi: National Center for Warm Water Aquaculture, Stoneville | 1,716,000 | -1,716,000 | -- |
| National Center for Natural Products, Oxford | 4,382,000 | -4,382,000 | -- |
| New York: Plum Island Animal Disease Center, Greenport | 1,475,000 | +3,525,000 | 5,000,000 |
| Ohio: Demonstration Greenhouse, Lucas County | 200,000 | -200,000 | -- |
| South Carolina: U.S. Vegetable Laboratory, Charleston | 909,000 | -909,000 | -- |

| Facilities | 1994 Estimated | Program Changes | 1995 Estimated |
|---|---|---|---|
| Texas: Plant Stress and Water Conservation Laboratory, Lubbock ..... | 551,000 | -551,000 | -- |
| Subtropical Agricultural Research Laboratory, Weslaco ..... | 1,400,000 | -1,400,000 | -- |
| TOTAL AVAILABLE ..... | 32,743,000 b | -7,043,000 | 25,700,000 |

PROJECT STATEMENT
(on basis of available funds)

| PROJECT | 1993 Actual | | 1994 Estimated | | | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | AMOUNT | Staff Years | AMOUNT | Staff Years | Increase or Decrease | AMOUNT | Staff Years |
| Total Obligations.. | $38,362,193 | - - | $40,000,000 | - - | $-5,000,000 | $35,000,000 | - - |
| Unobligated Balances: Available, Start of year | -59,877,289 | - - | -56,029,096 | - - | 7,257,096 | -48,772,000 | - - |
| Available, End of year..... | 56,029,096 | - - | 48,772,096 | - - | -9,300,096 | 39,472,000 | - - |
| Total Available or Estimate. | 34,514,000 | - - | 32,743,000b | - - | -7,043,000(1) | 25,700,000 | - - |

a In FY 1994, $19.7 million was appropriated for renovation and repair work at the Beltsville Agricultural Research Center under the Department's Rental Payments account.

b Includes $8,460,000 for projects proposed for rescission. This proposal would rescind funds and congressional earmarks directing resources to be used for specific new construction. The remaining resources would be used to finance renovation projects at the Agency's regional research centers and address serious environmental and safety defects at other ARS facilities.

BUILDINGS AND FACILITIES

(1) A net decrease of $7,043,000 for Buildings and Facilities, consisting of:

(a) An increase of $13,100,000 for the modernization of facilities at selected ARS Regional Research Centers: Albany, California ($5.6 million), New Orleans, Louisiana ($3.2 million), and Peoria, Illinois ($4.3 million).

Need for Change. Outmoded facilities are hampering the ability of ARS scientists to conduct advanced research. The Agency has also experienced problems in attracting the best scientists when they are presented with old, deteriorated laboratory facilities. Existing facilities contain numerous building and environmental code deficiencies. Additional resources need to be targeted toward the Agency's ongoing efforts to renovate and modernize ARS' major national research centers in Albany, California, New Orleans, Louisiana, and Peoria, Illinois. An investment of resources is essential for these centers to regain the scientific capacity necessary to deliver viable and timely research discoveries that contribute to the development of new markets at home and abroad.

All major building systems at the Albany, New Orleans, and Peoria research centers--heating, ventilation, air-conditioning, electrical, roofs, and infrastructures (paving, steam and water lines, and waste treatment disposal systems)--have either reached or passed their useful life expectancy. Other existing facility deficiencies involving safety and health needs, such as asbestos removal and building code upgrade requirements, need to be corrected.

Nature of Change. Additional appropriations are required in FY 1995 to allow ARS to proceed with the phased modernization efforts at the Albany, California Western Regional Research Center (WRRC), New Orleans, Louisiana Southern Regional Research Center (SRRC), and Peoria, Illinois National Center for Agricultural Utilization Research (NCAUR). Phasing construction of major renovations is necessary in major laboratories while individual laboratories or wings of laboratories are being renovated since the Agency has virtually no swing space in which to house displaced scientists. The major needs for these centers in FY 1995 are as follows:

- WRRC Chemical Wing. Construction of Phase 7 of the modernization program-$5.6 million.

  Construction will involve the renovation of laboratories, upgrading of utilities, new HVAC system, replacement of casework, upgrading of electrical system, fire safety improvements to meet current codes, asbestos abatement and site improvements. In FY 1994, $1,161,000 was appropriated toward construction of Phase 7. An additional $5.6 million is required in FY 1995.

- SRRC Chemical Wing. Construction of Phase 7 of the modernization program--$3.2 million.

The modernization of the Chemical Wing will involve the renovation of laboratories, new HVAC system, new casework, electrical upgrade, fire safety improvements to meet current codes, and asbestos abatement. Funding of Phase 7 ($3.2 million) will complete the work in the Chemical Wing.

- NCAUR Semi-Works building & North Wing - $4.3 million. Design has been completed for the phased renovation of the Semi-Works building and the North Wing. In FY 1995, $4.3 million will be needed to construct the renovations to the Semi-Works building, as well as begin the first phase of a multi-phase renovation to the North Wing. The requested amount, plus the $1,545,000 appropriated in FY 1993 for design of the Chemical Wing will provide for the funds required for construction of this phase.

(b) An increase of $5,000,000 for modernization of facilities at the Beltsville Agricultural Research Center, Beltsville, Maryland.

Need for Change. The Beltsville Agricultural Research Center (BARC) was established in 1910. Current land resources total 7,000 acres and accommodate more than 800 buildings and structures in support of ARS research programs, including natural resources and environmental sciences, plant and animal productivity, product quality, and human nutrition studies. The ARS staff at Beltsville totals about 1,500 including 400 scientists.

BARC is the largest research center in ARS and is the largest agricultural research center in the world in terms of program scope and concentration of scientists. BARC has long enjoyed a worldwide image of preeminence in the agricultural sciences because of its long history of research quality, contributions to agriculture, and prominent scientists. It is the headquarters for ARS' national program leadership. In addition, 18 other Federal and State agencies such as the FDA, EPA, FGIS, and FSIS have offices or laboratories at BARC, or have facilities adjacent to the center.

Most of the major ARS facilities and utility support systems at BARC were built in the 1930's and 1940's. Deterioration and obsolescence of these 50-year-old facilities are hampering both the scientific research and the image of BARC as the preeminent agricultural research center of the USDA.

An architectural-engineering consultant has completed a comprehensive study on BARC and produced an overall master plan with cost estimates for the remaining facility modernization work. Execution of this plan, which was to be phased over an 11-year period, was to cost an estimated $205 million. However, inconsistent funding levels have resulted in a larger and more costly program.

ARS is currently implementing the consultant's recommendations through a phased funding process. The consultant's study specified the necessity for BARC's modernization to incorporate a mix of both construction of new structures and renovation of

existing facilities. Over 200 outmoded structures will eventually be demolished.

Nature of Change. Funds are needed in FY 1995 to continue with the vigorous implementation of the BARC modernization plan. ARS proposes $5 million specifically for:

- Building 004. Building 004 is currently used for offices, laboratories, and support space. It houses the Plant Sciences Institute's Fruit Laboratory, Florist and Nursery Crops Laboratory, and the Vegetable Laboratory. The building will be renovated to provide modern, state-of-the-art laboratories, offices, and support space. It will be used to house the Product Quality Development Institute's Horticultural Crops Quality Laboratory. Design is scheduled for FY 1994. Construction is scheduled for FY 1995 and is estimated at $5 million.

(c) An increase of $3,525,000 for immediate environmental and facility deficiency needs at the Plum Island Animal Disease Center, Greenport, New York.

Need for Change. The Plum Island Animal Disease Center (PIADC) was established by an Act of Congress in 1954. It is located on a federally-owned 840-acre island located about two miles off the eastern tip of Long Island, New York. PIADC is the only site in the United States authorized by Congress to carry out research and diagnostic work on foreign animal diseases (e.g., foot-and-mouth disease and African swine fever) which are an ongoing threat to the U.S. livestock industry.

In 1989, ARS and APHIS began to develop an overall plan for the repair and maintenance of the buildings and supporting infrastructure at PIADC. Environmental concerns were also addressed. Engineering studies identified the need for repairs and improvements to correct major code violations and provide mandatory safeguards against power failures.

Based on these studies, projects which must be completed in the near term were selected for funding in FY 1995. Longer term facility requirements will be reviewed in the context of scientific advances and other operating considerations which may provide alternatives to the continued operation of Plum Island.

Nature of Change. The additional funds will be used for infrastructure repair and environmental compliance projects requiring immediate repair or replacement. These are necessary to bring facilities in compliance with Federal, State, and local environmental laws, regulations, and standards.

- Aboveground Fuel Tank Repairs. Upgrade the two existing 210,000 gallon fuel tanks to meet current regulations. A study was initiated in FY 1992 to determine the scope of repairs. In FY 1995, design and construction is estimated at $1,500,000.

- o Orient Point Harbor Repair. In FY 1991, ARS completed a design addressing repairs to the Orient Point harbor in three construction phases. There is a pressing need to repair the eastern section of the harbor due to a failing bulkhead. Construction of Phase 1 is estimated at $1,500,000 in FY 1995. To complete Phases 2 and 3, additional costs are estimated at $2,700,000.

- o Electric Submarine Cable. The existing electric submarine cable was last replaced in 1983. While the actual condition of this cable is unknown, the expected life is estimated to be eleven years. This cable is the single source of primary power to the island. In FY 1995, design and construction is estimated at $1,350,000.

- o Miscellaneous Environmental Projects. In FY 1993, ARS issued a contract to conduct a preliminary assessment to identify potential environmental liabilities at PIADC. It is expected that the study will identify environmental problems that need to be addressed. In FY 1995, ARS is requesting $650,000 to address problems that are identified.

(d) An increase of $2,600,000 for construction of a new facility for the European Biological Control Laboratory, Montpellier, France.

Need for Change. The Biological Control of Weeds Laboratory - Europe, established in Rome in 1958 and the European Parasite Laboratory established near Paris in 1919, were combined in September, 1991 as the European Biological Control Laboratory in Montpellier, France. This laboratory is one of four overseas biological control laboratories of the Agricultural Research Service.

Many of the insect pests and weeds in the United States are of European or Asian origin. Many have become problems of national importance. The insect pests attack crops and domestic animals, ornamentals, and forests; the weeds infest millions of acres of pasture, crop lands, and natural areas. Annually, millions of dollars of losses are caused by immigrant pests.

The mission of the European Biological Control Laboratory in Montpellier is to discover, conduct research on, and introduce suitable natural enemies (insects, mites, and pathogens) into the United States to abate these insect pests and weeds. Using biological control strategies is a component of ARS' overall plan to reduce pesticide use. Pesticide reduction is a major administration initiative.

The Laboratory's research and service program is in support of U.S. based ARS laboratories and APHIS. The Laboratory cooperates extensively with biological control specialists in State agencies and universities throughout the United States and throughout the world. The Laboratory serves as the focal point of ARS exploration in Eurasia, the Middle East, North Africa, and as a source of information on biological control activities.

The continued success of the European Biological Control Laboratory depends upon construction of an appropriate facility. The current facilities which were to be "temporary" are crowded and dispersed. It represents a serious impediment to the Laboratory's operations.

Nature of Change. Presently, the European Biological Control Laboratory's facilities consist of:

- Laboratory/office space (4300 sq. ft) in one building on one site.
- Laboratory/office space (1900 sq. ft) in another building at another site.
- Greenhouses, auxiliary quarantine gardens, temporary laboratories, storage and a shop in five other, rented locations.
- A quarantine facility (400 sq. ft).

The Laboratory does not presently have a quarantine greenhouse. This represents a serious deficiency for the program.

Funding in the amount of $2.6 million is requested to proceed with the construction of a new laboratory. To date, $331,000 has been spent for the purchase of a new laboratory construction site in Montpellier, and $100,000 has been committed for professional services.

The planning and design for the new laboratory is in the process of being awarded. This is projected to cost $400,000, which will be funded from the FY 1993 appropriation for miscellaneous facilities. The planning/design project will be completed within one year of award.

(e) A net decrease of $32,743,000 to delete funds provided in the FY 1994 Appropriation Act.

Need for Change. Funds for projects contained in the FY 1994 Appropriation Act are available until expended and are not required in FY 1995.

Agricultural Research Service
Status of Construction Projects as of January 1994

Status of research facilities authorized or funded in prior years and reported as uncompleted in the 1994 Explanatory Notes, is as follows:

NOTE: Design criteria, provided by ARS, specifies the program requirements for the facility and forms the basis for negotiation of architect-engineer contracts. Diagrammatic drawings or concept drawings provide the basis for the first review of the architect's design. Tentative drawings or architect's design are provided by the architect for firming up cost estimates and basis for developing the completed, and final working drawings.

| Location and Purpose | Year | Amount of Funds Provided | Description |
|---|---|---|---|
| Arkansas, Stuttgart<br>Rice Research Center | 1991 Planning | $222,997 | Completion of design for the new facility is anticipated in the Third Quarter of FY 1994. |
| | 1992 Planning | 729,000 | |
| | 1993 Construction | 702,000 | |
| | 1994 Construction | 3,828,000 | |
| | Total | 5,481,997 | |
| California, Riverside<br>U.S. Salinity<br>Laboratory | 1987 Planning | 1,000,000 | Construction of the new facility is scheduled for completion in the Fourth Quarter of FY 1994. |
| | 1989 Construction | 900,000 | |
| | 1990 Construction | 2,000,000 | |
| | 1991 Construction | 5,049,934 | |
| | 1992 Construction | 5,300,000 | |
| | 1993 Construction | 3,980,000 | |
| | Total | 18,229,934 | |
| California, Albany<br>Western Regional<br>Research Center | 1994 Construction | 1,161,000 | Funds were appropriated for Phase 7. Construction of Phase 7, which is estimated at $5.6 million, is on hold until the project is fully funded. |
| California, Parlier<br>Horticultural Crop<br>Research Laboratory<br>and Water Management<br>Research Laboratory | 1994 Planning | 2,630,000 | Pre-design contract is scheduled for award in the Second Quarter of FY 1994. |

Status of Construction Projects as of January 1994 (con't.)

| Location and Purpose | Year | Amount of Funds Provided | Description |
|---|---|---|---|
| District of Columbia<br>U.S. National Arboretum, Brickyard Restoration | 1989 Reprogrammed for Design and Construction | $2,000,000 | Design for the Brickyard Restoration project is complete. Phase 1 of construction including asbestos abatement and stabilization of two kilns and two stacks was awarded in the Fourth Quarter of FY 1993, with completion anticipated in the Third Quarter of FY 1994. |
| Water System Upgrade | 1992 Planning<br>1993 Construction<br>1994 Construction<br>Construction | 400,000*<br>400,000*<br>400,000*<br>500,000<br>1,700,000 | The design for the new water system is complete. Phase 1 of construction is in progress with completion anticipated by the Third Quarter of FY 1994. Phase 2 of construction is scheduled for award in the Second Quarter of FY 1994. |
| Florida/Hawaii<br>Emergency Relief | 1992 Planning and Construction | 15,000,000 | Damaged facilities have been repaired and made functional at an expenditure of $1.9 million. The Agency is presently considering options regarding the effective utilization of remaining funds. |
| Florida, Ft. Pierce<br>Horticultural Research Laboratory | 1994 Planning | 2,900,000 | Pre-Design contract is scheduled for award in the Third Quarter of FY 1994. |
| Georgia, Athens<br>Poultry Disease Laboratory | 1992 Planning<br>1993 Construction<br>Total | 400,000<br>677,000<br>1,077,000 | The design for the new facility, which is 35% complete is currently on hold pending determination of future course of action by the Agency. |
| Illinois, Peoria<br>National Center for Agricultural Utilization Research | 1992 Planning<br>1993 Planning<br>Total | 1,825,000<br>1,545,000<br>3,370,000 | The design for the Pilot Plant and the Semi-Works Building is complete. Subject to Congressional approval, the Agency is considering option to redirect the FY 1993 planning funds for the Chemical Wing towards initial construction of the Semi-Works Building as a means of facilitating modernization program. |

* Appropriated under ARS' Salaries and Expense account.

Status of Construction Projects as of January 1994 (con't.)

| Location and Purpose | Year | Amount of Funds Provided | Description |
|---|---|---|---|
| Iowa, Ames<br>National Animal Disease Center, Necropsy | 1991 Planning<br>1994 Construction | $299,996<br>3,900,000<br>4,199,996 | The design for a stand-alone necropsy facility with an incinerator is complete. Construction award is anticipated in the Third Quarter of FY 1994. |
| National Swine Research Center | 1992 Planning and Construction<br>1993 Planning and Construction<br>1994 Construction<br>Total | 1,800,000<br>1,524,000<br>4,524,000<br>7,848,000 | Design contract for the Office/Laboratory was awarded in the Fourth Quarter of FY 1993 with completion anticipated in the Fourth Quarter of FY 1994. Award for the design contract for the Farm Complex is anticipated in the Third Quarter of FY 1994. |
| Louisiana, New Orleans<br>Southern Regional Research Center | 1992 Construction<br>1993 Planning and Construction<br>1994 Construction<br>Total | 1,950,000<br>1,651,000<br>2,667,000<br>6,268,000 | Phases 1 and 2 of construction are complete. Construction of Phases 3, 4, and 5 is currently in progress. The FY 1993 appropriation of $1,651,000 is being utilized for the design and construction of required site repairs consisting of roads, curbing, drainage, etc., for which construction is scheduled for award in the Second Quarter of FY 1994. The FY 1994 appropriation of $2,667,000 will be applied to the construction of Phase 6. |
| Maryland, Beltsville<br>BARC Modernization of Facilities | 1988 Modernization<br>1989 Modernization<br>1990 Modernization<br>1991 Modernization<br>1992 Modernization<br>1993 Modernization<br>1994 Modernization<br>Total | 5,750,000<br>6,100,000<br>9,860,000<br>15,999,792<br>16,000,000<br>13,547,000<br>19,700,000**<br>86,956,792 | Ongoing Projects:<br>1992 Funds:<br>Construction:<br>-- Upgrade Waste Water Treatment Facility Phase 2 (BARC-East) scheduled for completion in the Second Quarter of FY 1994. |

**Appropriated under USDA Rental Payments Account

Status of Construction Projects as of January 1994 (con't.)

| Location and Purpose | Year | Amount of Funds Provided | Description |
|---|---|---|---|
| BARC Modernization of Facilities (continued) | | | -- Plant Science Facility<br>Completion of construction of new facility is scheduled in the First Quarter of FY 1995.<br>-- Range 2 Greenhouse Modernization<br>Phase 1 of construction is scheduled for completion in the Second Quarter of FY 1994.<br>-- Dairy Research Facility<br>Scheduled for completion in the Second Quarter of FY 1994.<br>1993 Funds:<br>Design:<br>-- (Study) Animal Office/Laboratory Consolidation including APU using cluster concept awarded in the Fourth Quarter of FY 1993.<br>-- Controlled Environmental Facility<br>Awarded in the Fourth Quarter of FY 1993.<br>-- Upgrade BARC-West electrical system<br>Awarded in the Third Quarter of FY 1993.<br>Construction:<br>-- Waste Water Treatment Facility at BARC-West<br>Awarded in the Fourth Quarter of FY 1993. |

Status of Construction Projects as of January 1994 (con't.)

| Location and Purpose | Year | Amount of Funds Provided | Description |
|---|---|---|---|
| BARC Modernization of Facilities (continued) | | | Planned Projects:<br>1994 Funds:<br>Design:<br>-- Building 004 Modernization Scheduled for award in the Fourth Quarter of FY 1994.<br>-- Consolidated Poultry and Livestock Facility Scheduled for award in the Fourth Quarter of FY 1994.<br>Construction:<br>-- Building 001 Modernization Scheduled for award in the Second Quarter of FY 1994.<br>-- Electrical System Upgrade (BARC-West) Scheduled for award in the Third Quarter of FY 1994.<br>-- Water System Upgrade Scheduled for award in the Fourth Quarter of FY 1994. |
| Michigan, East Lansing<br>Regional Poultry<br>Research Center | 1992 Planning<br>1993 Planning<br>Total | $250,000<br>212,000<br>462,000 | Pre-design contract for the Laboratory/Office modifications /addition is scheduled for completion in the Second Quarter of FY 1994. Completion of pre-design contract for experimental and research farms anticipated in the Third Quarter of FY 1994. |
| Minnesota, Morris<br>Soil and Water<br>Laboratory | 1991 Planning<br>1992 Construction<br>Total | 299,996<br>825,000<br>1,124,996 | Design of the facility was completed in the First Quarter of FY 1994. Construction of Phase 1 is scheduled for award in the Third Quarter of FY 1994. |

Status of Construction Projects as of January 1994 (con't.)

| Location and Purpose | Year | Amount of Funds Provided | Description |
|---|---|---|---|
| Mississippi, Oxford<br>National Center for<br>Natural Products | 1988 Feasibility and Planning | $50,000[a/] | Construction of the facility is in progress. Contracts for the installation of building systems and partial finishes are in the bidding process. Construction is scheduled for completion in the First Quarter of FY 1995. |
| | 1989 Planning | 400,000[a/] | |
| | 1990 Planning and Construction | 3,875,000[b/] | |
| | 1991 Construction | 5,174,933[a/] | |
| | 1992 Construction | 5,175,000[a/] | |
| | 1993 Construction | 4,382,000[a/] | |
| | 1994 Construction | 4,382,000[a/] | |
| | Total | 23,438,933 | |
| Mississippi, Stoneville<br>National Center for<br>Warm Water Aquaculture | 1991 Planning and Construction | 1,199,985[c/] | Aquaria Building and deep well are complete. Construction of Sites 1, 2, and 3 (ponds) is approximately 80% complete. Design and planning of the Office/Laboratory are approximately 65% complete. |
| | 1992 Construction | 1,100,000[c/] | |
| | 1993 Construction | 931,000[c/] | |
| | 1994 Construction | 1,716,000[c/] | |
| | Total | 4,946,985 | |
| New York, Greenport<br>Plum Island Animal<br>Disease Center<br>Consolidation of<br>Facilities | 1981 Building 257 Construction Redirection | 1,200,000 | Construction for the consolidation of ARS and APHIS facilities is scheduled for completion in the First Quarter of FY 1995. |
| | 1989 Construction Default Settlement | 7,805,398 | |
| | 1990 Default Interest | 3,006,003 | |
| | 1991 APHIS share of Consolidation | 5,241,450 | |
| | 1992 APHIS share of Consolidation | 1,496,000 | |
| | 1992 ARS Construction | 3,000,000 | |
| | Total | 21,748,851 | |

Status of Construction Projects as of January 1994 (con't.)

| Location and Purpose | Year | Amount of Funds Provided | Description |
|---|---|---|---|
| Modernization of Facilities | 1993 Design and Construction | $2,540,000 | The construction of Building 101 Chiller Replacement is scheduled for completion in the Third Quarter of FY 1994. The FY 1994 appropriation will be used for construction of the Waste Water Treatment Plant which is scheduled for award in the Third Quarter of FY 1994. |
| | 1994 Construction | 1,475,000 | |
| | Total | 4,015,000 | |
| North Dakota, Fargo | | | |
| Plant Science Greenhouse Complex, North Dakota State University | 1991 Planning and Construction | 424,995 | Construction completion is scheduled in the Second Quarter of FY 1994. |
| Ohio, Lucas County | | | |
| Demonstration Greenhouse | 1992 Planning and Construction | 187,000[c/] | Environmental impact study was completed in the First Quarter of FY 1994 with construction of the greenhouse scheduled for completion in the Third Quarter of FY 1994. |
| | 1993 Construction | 158,000[c/] | |
| | 1994 Construction | 200,000[c/] | |
| | Total | 545,000 | |
| Oklahoma, Woodward | | | |
| Greenhouse for the Southern Plains Range Research Station | 1992 Planning and Construction | 173,000 | Construction of the greenhouse is complete. FY 1993 appropriated funds will be utilized for design and construction of a headhouse. A construction contract for the headhouse was awarded in the First Quarter of FY 1994 with completion anticipated in the Fourth Quarter of FY 1994. |
| | 1993 Design/ Construction | 146,000 | |
| | Total | 319,000 | |
| Oregon, Corvallis | | | |
| Northwest Small Fruit Center | 1990 Feasibility Study | 50,000 | Design of the new facility is complete. A construction contract was awarded in the Fourth Quarter of FY 1993 with completion anticipated in the First Quarter of FY 1995. |
| | 1991 Planning | 174,998 | |
| | 1992 Construction | 1,900,000 | |
| | Total | 2,124,998 | |

Status of Construction Projects as of January 1994 (con't.)

| Location and Purpose | Year | Amount of Funds Provided | Description |
|---|---|---|---|
| South Carolina, Charleston | 1988 Feasibility | $50,000 | Design for Phase 1 of the facility is complete. |
| U.S. Vegetable | 1990 Planning and | | Construction is on hold until the project is fully |
| Laboratory | Construction | 1,135,000 | funded. |
| | 1994 Construction | 909,000 | |
| | Total | 2,094,000 | |
| Texas, Lubbock | 1978 Feasibility | 100,000 | Construction of Phase 1-Headhouse/Greenhouse is complete. |
| Plant Stress and | 1979 Planning | 800,000 | Design for Phase 2-Main Laboratory/Office Building is |
| Water Conservation | 1984 Planning | 500,000 | also complete. Construction of Phase 2 is on hold until |
| Laboratory | 1990 Construction | 500,000 | the project is fully funded. |
| | 1991 Planning | 599,992 | |
| | 1992 Construction | 1,300,000 | |
| | 1993 Construction | 1,101,000 | |
| | 1994 Construction | 551,000 | |
| | Total | 5,451,992 | |
| Texas, Weslaco | 1990 Planning | 340,000 | A construction contract was awarded in the Third Quarter |
| ARS Bee Laboratory | 1991 Construction | 1,699,978 | of FY 1992 and is scheduled for completion in the |
| | 1992 Construction | 1,700,000 | Second Quarter of FY 1994. |
| | Total | 3,739,978 | |
| Subtropical Agricultural Research Laboratory Modernization | 1994 Planning | 1,400,000 | Planning and design contract is scheduled to be awarded in the Third Quarter of FY 1994. |
| Washington, Yakima | 1988 Planning | 1,000,000 | Design of facility is complete. Construction |
| U.S. Fruit and | 1989 Construction | 900,000 | contract is scheduled for award in the Second |
| Vegetable Laboratory | 1990 Construction | 1,000,000 | Quarter of FY 1994 with completion anticipated |
| | 1991 Construction | 5,049,934 | in the Second Quarter of FY 1996. |
| | 1992 Construction | 5,050,000 | |
| | Total | 12,999,934 | |

Status of Construction Projects as of January 1994 (con't.)

| Location and Purpose | Year | Amount of Funds Provided | Description |
|---|---|---|---|
| Wisconsin, Madison<br>Greenhouse for the Cereal Crops Research Unit, Barley and Malt Laboratory | 1992 Planning and Construction<br>1993 Construction<br>Total | $175,000<br>148,000<br>323,000 | Completion of pre-design contract is anticipated in the Second Quarter of FY 1994. Design contract award is anticipated in the Fourth Quarter of FY 1994. |
| ARS Facilities, Miscellaneous<br>Parlier, CA<br>Orlando, FL<br>Montpellier, France | 1993 Relocation | 1,270,000 | The following projects will be undertaken in FY 1994: (1) Pre-design of the new laboratory at Parlier, CA, which is scheduled for award in the Second Quarter of FY 1994; (2) design contract for the laboratory in Montpellier, France, which was awarded in the First Quarter of FY 1994, with completion scheduled in the Second Quarter of FY 1995; (3) pre-design award for the new site of the Orlando laboratory which is scheduled in the Third Quarter of FY 1994. |

Footnotes:
a/ Appropriated to ARS and transferred to CSRS.
b/ Appropriated to CSRS.
c/ Grant Award.

## AGRICULTURAL RESEARCH SERVICE

### Passenger Motor Vehicles

The passenger motor vehicles of Agricultural Research Service (ARS) are used almost exclusively by professional research investigators and technical personnel. In this type of work a high degree of mobility is required. In the course of their daily work, research personnel may need to travel to individual farms, ranches, commercial firms, State agricultural experiment stations, etc.

It is the policy of ARS to pool the use of motor vehicles for different activities in order to keep the number of vehicles to a minimum and reduce overall costs of operation and maintenance. Monthly vehicle operation reports are required and periodic surveys are made to determine the extent to which vehicles are being used and their condition.

Replacement of passenger motor vehicles.

It is proposed to replace 46 of 461 vehicles currently in operation. These vehicles are assigned to ARS locations and are used in connection with research studies and technical assistance. Vehicle replacement is based on funding priority, program management, mileage, and vehicle age.

Age and Mileage Data for passenger-carrying vehicles on hand as of September 30, 1993.

| Age-Year Model | Number of Vehicles* | Percent of Total | Lifetime Mileage (thousands) | Number of Vehicles | Percent of Total |
|---|---|---|---|---|---|
| 1988-5 | 373 | 81 | 100 and above | 32 | 7 |
| 1989-4 | 14 | 3 | 80-100 | 69 | 15 |
| 1990-3 | 18 | 4 | 60-80 | 111 | 24 |
| 1991-2 | 18 | 4 | 40-60 | 106 | 23 |
| 1992-1 | 14 | 3 | 20-40 | 88 | 19 |
| 1993 | 24 | 5 | Under 20 | 55 | 12 |
| Total | 461 | 100 | | 461 | 100 |

* Includes six vehicles used in foreign countries.

### Aircraft

The Agency currently maintains a fleet of seven aircraft, located at College Station, Texas, and Weslaco, Texas. These specially modified and equipped research aircraft are used in pest control airborne insect migration, infrared and color photography, and evaluating effects of weather on agriculture.

# COOPERATIVE STATE RESEARCH SERVICE

## Purpose Statement

Cooperative State Research Service is the U.S. Department of Agriculture's principal entree to the university system of the United States for the purpose of conducting agricultural research and education programs as authorized by the Hatch Act of 1887, as amended (7 U.S.C. 361a-361i); the Cooperative Forestry Research Act of 1962, as amended (16 U.S.C. 582a-7); Public Law 89-106, Section (2), as amended (7 U.S.C. 450i); and the National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended (7 U.S.C. 3101 et seq.). Through these authorities, the U.S. Department of Agriculture participates with State and other sources of funding to encourage and assist the State institutions in the conduct of agricultural research and education through the State Agricultural Experiment Stations of the 50 States and the territories; by approved Schools of Forestry; the 1890 Land-Grant Institutions and Tuskegee University; Colleges of Veterinary Medicine; and other eligible institutions.

Cooperative State Research Service participates in a nationwide system of agricultural research and education program planning and coordination among the State institutions, U.S. Department of Agriculture and the agricultural industry of America. Program coordination and planning are carried out by a Cooperative State Research Service staff located entirely in the Washington, D.C. area. This headquarters unit serves more than 12,000 scientists in the university system of the United States. As of September 30, 1993, there were 214 full-time employees and 17 other than full-time employees.

Under the proposed reorganization, this agency will be merged into the newly established Agricultural Research and Education Service.

COOPERATIVE STATE RESEARCH SERVICE

Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|
| Direct Appropriations: | | | | | | |
| Cooperative State Research Service | 432,993,000 | 206 | 456,586,000 | 216 | 421,398,000 | 226 |
| Buildings and Facilities | 52,101,000 | 10 | 56,874,000 | 10 | - - | - - |
| Total, Direct Appropriations | 485,094,000 | 216 | 513,460,000 | 226 | 421,398,000 | 226 |
| Obligations under other USDA appropriations: | | | | | | |
| Alternative Agricultural Research and Commercialization Center: | | | | | | |
| Administrative Support | 122,084 | - - | 58,389 | - - | 58,389 | - - |
| Biobased Prods. Exec. Summary | 5,000 | - - | - - | - - | - - | - - |
| Biobased Prods. Expo '94 | 10,000 | - - | - - | - - | - - | - - |
| Technology 2000 | 1,000 | - - | - - | - - | - - | - - |
| Agricultural Research Service: | | | | | | |
| Evaluation Studies | 177,000 | - - | 177,000 | - - | 177,000 | - - |
| Biotech. Risk Assessment | 905,900 | - - | 941,400 | - - | 953,700 | - - |
| Water Quality Project | 5,000 | - - | - - | - - | - - | - - |
| Biobased Prods. Exec. Summary | 5,000 | - - | - - | - - | - - | - - |
| Biobased Prods. Expo'94 | 3,000 | - - | - - | - - | - - | - - |
| Research Apprenticeship Program | 250,000 | - - | 250,000 | - - | 250,000 | - - |
| Agricultural Stabilization and Conservation Service: | | | | | | |
| Demonstration & Instr. Farm Project. | 55,080 | - - | 54,540 | - - | 54,540 | - - |
| Animal and Plant Health Inspection Service: | | | | | | |
| Leafy Spurge Control | 55,000 | - - | 55,000 | - - | 55,000 | - - |
| Bioeconomic Models for Leafy Spurge. | 48,600 | - - | 48,600 | - - | 48,600 | - - |
| Office of Agricultural Biotechnology | 21,463 | - - | - - | - - | - - | - - |
| Biocontrol of Sweet Potato Whitefly. | 25,000 | - - | - - | - - | - - | - - |
| Extension Service: | | | | | | |
| Rural Development Centers | 2,064 | - - | - - | - - | - - | - - |
| Biobased Prods. Expo '94 | 5,000 | - - | - - | - - | - - | - - |
| Federal Grain Inspection Service: | | | | | | |
| Research Science Program | 9,720 | - - | - - | - - | - - | - - |
| Food Safety and Inspection Service: | | | | | | |
| Veterinary Products Info. System | 40,000 | - - | 40,000 | - - | 40,000 | - - |
| Office of Agricultural Biotechnology | 23,000 | - - | - - | - - | - - | - - |
| Beef Study | 108,000 | - - | - - | - - | - - | - - |
| E. Coli Study | 40,000 | - - | - - | - - | - - | - - |
| Forest Service: | | | | | | |
| Biotech. Risk Assessment | 62,000 | - - | 85,000 | - - | 85,000 | - - |
| Forestry Research | 1,600 | - - | - - | - - | - - | - - |
| Atmospheric Deposition | 137,996 | - - | 132,625 | - - | 132,625 | - - |
| Biobased Prods. Expo '94 | 5,000 | - - | - - | - - | - - | - - |

| Item | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|
| National Agricultural Library: | | | | | | |
| Information Services | 2,075 | - - | 2,075 | - - | 2,075 | - - |
| Office of International Cooperation and Development: | | | | | | |
| Boll Weevil Conference | 3,500 | - - | - - | - - | - - | - - |
| Soil Conservation Service: | | | | | | |
| Weed Control Strategies | - - | - - | 29,700 | - - | - - | - - |
| Various agencies sharing cost of USDA Small Business Innovation Research Program (SBIR) | 970,919 | - | 968,992 | - - | 1,307,934 | - - |
| Various research agencies sharing cost of Current Research Information System (CRIS) | 761,200 | 9 | 772,100 | 9 | 772,100 | 9 |
| Various research agencies sharing cost of Minority On-Line Information System | 31,300 | - - | - - | - - | - - | - - |
| Other Anticipated Reimbursements | - - | - - | 287,245 | - - | 334,203 | - - |
| Total, Other USDA Appropriations | 3,892,501 | 9 | 3,902,666 | 9 | 4,271,166 | 9 |
| Total Agriculture Appropriations | 488,986,501 | 225 | 517,362,666 | 235 | 425,669,166 | 235 |
| Other Federal Funds: | | | | | | |
| Army Corps of Engineers: | | | | | | |
| Computerized Environmental Resources | 174,761 | - - | 76,983 | - - | 76,983 | - - |
| Regional Recreation Demand Models | 100,000 | - - | 54,054 | - - | 54,054 | - - |
| Waterway Network Research | 148,203 | - - | - - | - - | - - | - - |
| Ecological Functions of Wetlands | 106,788 | - - | - - | - - | - - | - - |
| Functional Level of Created Marshes | 49,560 | - - | - - | - - | - - | - - |
| Outdoor Recreation Opportunities | 38,837 | - - | 38,837 | - - | 38,837 | - - |
| Demand and Marketing Study | 32,400 | - - | 32,400 | - - | 32,400 | - - |
| Central Intelligence Agency: | | | | | | |
| Plant Breeders Conference | - - | - - | 20,000 | - - | - - | - - |
| Department of Commerce, NOAA, Atmospheric Deposition | 200,260 | - - | 189,395 | - - | 189,395 | - - |
| Department of Defense: | | | | | | |
| Biodegradable Plastics Research | 1,504,000 | - - | 486,500 | - - | - - | - - |
| Alternative Deployment Pilot Proj | 943,000 | - - | 5,000,000 | - - | 5,000,000 | - - |
| Non-Food Agric. Based Prod. & Tech | 4,700,000 | - - | 2,500,000 | - - | 2,500,000 | - - |
| Department of Interior: | | | | | | |
| Bureau of Land Management, Atmospheric Deposition | 63,000 | - - | 63,000 | - - | 63,000 | - - |
| Incentive-Based Grazing Fee | 229,905 | - - | - - | - - | - - | - - |
| Geological Survey, Atmospheric Deposition | 482,518 | - - | 484,610 | - - | 484,610 | - - |
| National Park Service, Atmospheric Deposition | 124,225 | - - | 138,675 | - - | 138,675 | - - |

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Environmental Protection Agency: | | | | | | |
| Atmospheric Deposition | 53,640 | - - | 54,700 | - - | 54,700 | - - |
| Nitrogen Testing for Water Quality | 30,000 | - - | - - | - - | - - | - - |
| Agric. Conserv. & Environ. Center | 5,000 | - - | - - | - - | - - | - - |
| Agric. in Concert with Environment | 947,000 | - - | 600,000 | - - | 600,000 | - - |
| Sewage Sluge on Land | 800,000 | - - | - - | - - | - - | - - |
| Research Conference | - - | - - | 50,000 | - - | - - | - - |
| Food and Drug Administration: | | | | | | |
| Veterinary Products Info. System | 54,000 | - - | 54,000 | - - | 54,000 | - - |
| INAD Coordinator | 4,000 | - - | 2,000 | - - | - - | - - |
| General Accounting Office: | | | | | | |
| Wheat Marketing Export | 25,920 | - - | - - | - - | - - | - - |
| Naval Medical Research Institute: | | | | | | |
| Enteric Diseases Program | 5,400 | - - | - - | - - | - - | - - |
| Office of Science & Technology Policy: | | | | | | |
| Scientific Services | 45,245 | - - | - - | - - | - - | - - |
| Tennessee Valley Authority: | | | | | | |
| Atmospheric Deposition | 22,192 | - - | 27,180 | - - | 27,180 | - - |
| U.S. Air Force: | | | | | | |
| SBIR Program | 10,000 | - - | 125,000 | - - | 115,000 | - - |
| Other Anticipated Reimbursements | - - | - - | 2,100,000 | - - | 2,300,000 | - - |
| Total, Other Federal Funds | 10,899,854 | - - | 12,097,334 | - - | 11,728,834 | - - |
| Total, Cooperative State Research Service | 499,886,355 | 225 | 529,460,000 | 235 | 437,398,000 | 235 |

COOPERATIVE STATE RESEARCH SERVICE

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | 1993 Headquarters | 1994 Headquarters | 1995 (1) Headquarters |
|---|---|---|---|
| ES-6 | 1 | 1 | 1 |
| ES-5 | 2 | 2 | 2 |
| ES-4 | 3 | 4 | 4 |
| Senior Level | 2 | 2 | 2 |
| GS/GM-15 | 38 | 39 | 39 |
| GS/GM-14 | 18 | 18 | 17 |
| GS/GM-13 | 15 | 15 | 16 |
| GS-12 | 24 | 24 | 24 |
| GS-11 | 12 | 13 | 13 |
| GS-10 | 3 | 3 | 3 |
| GS-9 | 18 | 18 | 18 |
| GS-8 | 3 | 3 | 3 |
| GS-7 | 26 | 27 | 27 |
| GS-6 | 32 | 33 | 33 |
| GS-5 | 15 | 15 | 15 |
| GS-4 | 7 | 7 | 7 |
| GS-3 | 2 | 2 | 2 |
| Total Permanent Positions | 221 | 226 | 226 |
| Unfilled Positions end-of-year | -15 | -5 | -5 |
| Total, Permanent Employment, end-of-year | 206 | 221 | 221 |
| Staff-Years: Ceiling | 225 | 235 | 235 |

(1) Number of positions and grade levels are distributed on a pro-rata basis to meet the goals of the ARES realignment.

## COOPERATIVE STATE RESEARCH SERVICE

### CLASSIFICATION BY OBJECTS

### 1993 and Estimated 1994 and 1995

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| Personnel Compensation: | | | |
| Headquarters | $8,790,470 | $9,574,000 | $9,807,000 |
| Field | - - | - - | - - |
| 11 Total Personnel Compensation | 8,790,470 | 9,574,000 | 9,807,000 |
| 12 Personnel Benefits | 1,712,887 | 1,868,000 | 1,913,000 |
| 13 Benefits for former personnel | 0 | 0 | 0 |
| Total Pers. Comp. & Benefits | 10,503,357 | 11,442,000 | 11,720,000 |
| Other Objects: | | | |
| 21 Travel | 1,300,051 | 1,405,000 | 1,044,000 |
| 22 Transportation of things | 50,856 | 51,000 | 39,000 |
| 23.3 Communications, utilities & miscellaneous charges | 1,071,195 | 1,292,000 | 1,003,000 |
| 24 Printing and reproduction. | 456,217 | 492,000 | 386,000 |
| 25.1 Consulting | 186,650 | 215,000 | 237,000 |
| 25.2 Other services | 1,139,523 | 1,227,440 | 39,289 |
| 25.3 Purchases/Goods & Srvcs | 2,487,064 | 2,543,000 | 346,000 |
| 25.4 Operation of GOCO's | 0 | 0 | 0 |
| 25.5 Res. & Dev. Contracts | 0 | 0 | 0 |
| 26 Supplies and materials | 259,144 | 259,000 | 213,000 |
| 31 Equipment | 306,040 | 306,000 | 247,000 |
| 41 Grants, subsidies and contributions | 475,754,422 | 502,779,041 | 406,123,711 |
| Total other objects | 483,011,162 | 510,569,481 | 409,678,000 |
| Total direct obligations | 493,514,519 | 522,011,481 | 421,398,000 |
| Position Data: | | | |
| Average Salary, ES positions | $110,200 | $114,430 | $116,261 |
| Average Salary, SL positions | $96,132 | $100,198 | $101,801 |
| Average Salary, GM/GS positions | $43,162 | $44,486 | $45,198 |
| Average Grade, GM/GS positions | 10.03 | 10.02 | 10.02 |

COOPERATIVE STATE RESEARCH SERVICE

The estimates include proposed changes in the language of this item as follows (new language underscored; deleted matter enclosed in brackets):

Cooperative State Research Service:

For payments to agricultural experiment stations, for cooperative forestry and other research, for facilities, and for other expenses, including $171,304,000 to carry into effect the provisions of the Hatch Act approved March 2, 1887, as amended, including administration by the United States Department of Agriculture, penalty mail costs of agricultural experiment stations under section 6 of the Hatch Act of 1887, as amended, and payments under section 1361(c) of the Act of October 3, 1980 (7 U.S.C. 301n.); $20,809,000 for grants for cooperative forestry research under the Act approved October 10, 1962 (16 U.S.C. 582a-582-a7), as amended, including administrative expenses, and payments under section 1361(c) of the Act of October 3, 1980 (7 U.S.C. 301n.); $28,157,000 for payments to the 1890 land-grant colleges, including Tuskegee University, for research under section 1445 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3222), as amended, including administration by the United States Department of Agriculture, and penalty mail costs of the 1890 land-grant colleges, including Tuskegee University; [$72,917,000] $29,718,000 for [contracts and] special grants for agricultural research under section 2(c) of the Act of August 4, 1965, as amended (7 U.S.C. 450i[];](c)), including administrative expenses; [$112,150,000] $130,000,000 for competitive research grants under section 2(b) of the Act of August 4, 1965, as amended (7 U.S.C. 450i(b)), including administrative expenses; $5,551,000 for the support of animal health and disease programs authorized by section 1433 of Public Law 95-113, including administrative expenses; $1,818,000 for supplemental and alternative crops and products as authorized by the National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended (7 U.S.C. 3319d); [$500,000 for grants for research pursuant to the Critical Agricultural Materials Act of 1984 (7 U.S.C. 178) and section 1472 of the Food and Agriculture Act of 1977, as amended (7 U.S.C. 3318), to remain available until expended;] $475,000 for rangeland research grants as authorized by subtitle M of the National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended; $3,500,000 for higher education graduate fellowships grants under section 1417(b)(6) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended (7 U.S.C. 3152(b)(6)), including administrative expenses, to remain available until expended (7 U.S.C. 2209b); $1,500,000 for higher education challenge grants under section 1417(b)(1) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended (7 U.S.C. 3152(b)(1)), including administrative expenses; $1,000,000 for a higher education minority scholars program under section 1417(b)(5) of the National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended (7 U.S.C. 3152(b)(5)), including administrative expenses, to remain available until expended (7 U.S.C. 2209b); $4,000,000 for aquaculture grants as authorized by section 1475 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3322) and other Acts; [$7,400,000] $8,825,000 for sustainable agriculture research and education, as authorized by section 1621 of Public Law 101-624 (7 U.S.C. 5811), including administrative expenses; and [$22,655,000] $11,891,000 for necessary expenses of Cooperative State Research Service activities, including coordination and program leadership for higher education work of the Department, administration of payments to State agricultural experiment stations, funds for employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), of which $10,550,000 shall be for a program of capacity building grants to colleges eligible to receive funds under the Act of August 30, 1890 (7 U.S.C. 321-326 and 328),

including Tuskegee University, to remain available until expended (7 U.S.C. 2209b), of which not to exceed $100,000 shall be for employment under 5 U.S.C. 3109; in all, [$453,736,000: Provided, That none of the funds appropriated or otherwise made available by this Act shall be used to support the price of wool or mohair by means of loans, purchases, payments, or other operations, except for marketing year 1993.] $418,548,000.

The first change revises the language to make specific reference to special grants, consistent with the amendment to this authority in the Food, Agriculture, Conservation, and Trade Act of 1990; adds language to provide for administrative expenses; and clarifies the U.S. Code citation.

The second change deletes language for research pursuant to the Critical Agricultural Materials Act of 1984. No funding is proposed for this program in 1995.

The third, fourth, and sixth changes move the citation for no-year funding from General Provision 706 to the specific programs previously cited in General Provision 706.

The fifth change identifies that these funds are for aquaculture grants and adds the U.S. Code citation.

The seventh change eliminates this provision which does not apply to CSRS programs.

## COOPERATIVE STATE RESEARCH SERVICE

| | |
|---|---|
| Appropriations Act, 1994 | $453,736,000 |
| Morrill-Nelson | 2,850,000 |
| Total, Appropriations Act, 1994 | 456,586,000 |
| Budget Estimate, 1995 | 421,398,000 |
| Decrease in Appropriations | -35,188,000 |

## SUMMARY OF INCREASES AND DECREASES

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Payments under the Hatch Act | $171,304,000 | - - | - - | $171,304,000 |
| Cooperative forestry research | 20,809,000 | - - | - - | 20,809,000 |
| Payments to 1890 colleges and Tuskegee University | 28,157,000 | - - | - - | 28,157,000 |
| Special research grants | 87,110,000 | - - | -$42,274,000 | 44,836,000 |
| National Research Initiative competitive grants | 112,150,000 | - - | +17,850,000 | 130,000,000 |
| Animal health and disease research, Section 1433 | 5,551,000 | - - | - - | 5,551,000 |
| Federal administration (direct appropriation) | 22,655,000 | +$125,000 | -10,889,000 | 11,891,000 |
| Higher education: | | | | |
| Morrill-Nelson | 2,850,000 | - - | - - | 2,850,000 |
| Other | 6,000,000 | - - | - - | 6,000,000 |
| Total Available | 456,586,000 | +125,000 | -35,313,000 | 421,398,000 |
| Recap: | | | | |
| Direct appropriations | 453,736,000 | +125,000 | -35,313,000 | 418,548,000 |
| Permanent appropriations | 2,850,000 | - - | - - | 2,850,000 |
| TOTAL | 456,586,000 | +125,000 | -35,313,000 | 421,398,000 |

PROJECT STATEMENT - CURRENT LAW
(On basis of appropriation)

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 1. Hatch Act | | | | | | | |
| Research program: | | | | | | | |
| Formula funds | $124,474,748 | | $126,288,428 | | - - | $126,288,428 | |
| Regional research | 39,482,313 | | 40,112,063 | | - - | 40,112,063 | |
| Subtotal | 163,957,061 | | 166,400,491 | | - - | 166,400,491 | |
| Federal Admin. (3%) | 4,827,939 | | 4,903,509 | | - - | 4,903,509 | |
| Total | 168,785,000 | 60 | 171,304,000 | 60 | - - | 171,304,000 | 60 |
| 2.Cooperative Forestry Research: | | | | | | | |
| Research program | 17,977,010 | | 20,184,730 | | - - | 20,184,730 | |
| Federal Admin. (3%) | 555,990 | | 624,270 | | - - | 624,270 | |
| Total | 18,533,000 | 6 | 20,809,000 | 6 | - - | 20,809,000 | 6 |
| 3.Payments to 1890 Colleges & Tuskegee University: | | | | | | | |
| Research program | 26,578,000 | | 27,312,290 | | - - | 27,312,290 | |
| Federal Admin. (3%) | 822,000 | | 844,710 | | - - | 844,710 | |
| Total | 27,400,000 | 10 | 28,157,000 | 10 | - - | 28,157,000 | 10 |
| 4.Special Research Grants: | | | | | | | |
| Aflatoxin research, IL | 134,000 | | 134,000 | | -$134,000 | - - | |
| Agribusiness management, Mississippi | 75,000 | | 75,000 | | -75,000 | - - | |
| Agricultural diversification, Hawaii | 154,000 | | 154,000 | | -154,000 | - - | |
| Agricultural management systems, MA | 261,000 | | 261,000 | | -261,000 | - - | |
| Agricultural Processing, Georgia | 50,000 | | - - | | - - | - - | |
| Agricultural trade, NO | 350,000 | | - - | | - - | - - | |
| Alfalfa research, KS | 125,000 | | 125,000 | | -125,000 | - - | |
| Alternative cropping systems in the Southeast,S.Carolina. | 278,000 | | 278,000 | | -278,000 | - - | |
| Alternative crops, ND. | 700,000 | | 700,000 | | -700,000 | - - | |
| Alternative Crops for arid lands, Texas | - - | | 100,000 | | -100,000 | - - | |
| Alternative marine & fresh water species,MS | 275,000 | | 275,000 | | -275,000 | - - | |
| Alternative pest control, Arkansas | 1,400,000 | | 1,400,000 | | -1,400,000 | - - | |
| Alternative to Oinoseb, Oregon | 225,000 | | - - | | - - | - - | |
| Animal Science Food Safety Consortium | 1,942,000 | | 1,942,000 | | -1,942,000 | - - | |
| Animal waste disposal, Michigan | 120,000 | | - - | | - - | - - | |
| Apple pest control, CA | - - | | 250,000 | | -250,000 | - - | |
| Apple quality research, Michigan | 94,000 | | - - | | - - | - - | |
| Aquaculture research (general) | 316,000 | | 316,000 | | -316,000 | - - | |
| Aquaculture, Illinois. | 200,000 | | 200,000 | | -200,000 | - - | |
| Aquaculture, LA | 390,000 | | 390,000 | | -390,000 | - - | |
| Aquaculture, Stoneville, Mississippi | 700,000 | | 700,000 | | -700,000 | - - | |
| Asian products lab., OR | - - | | 250,000 | | -250,000 | | |
| Asparagus yield decline, Michigan | 94,000 | | - - | | - - | - - | |
| Babcoc Institute, WI | 75,000 | | 250,000 | | -250,000 | | |

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Bean and beet research, Michigan | $189,000 | | - - | | - - | - - | |
| Beef carcass evaluation and identification | 210,000 | | $210,000 | | -$210,000 | - - | |
| Beef fat content, IA | 237,000 | | 237,000 | | -237,000 | - - | |
| Biodiesel research, MO | 50,000 | | 150,000 | | -150,000 | - - | |
| Broom snakeweed, NM | 200,000 | | 200,000 | | -200,000 | - - | |
| Canola research, KS | 100,000 | | 100,000 | | -100,000 | - - | |
| Celery fusarium, MI | 39,000 | | - - | | - - | - - | |
| Center for animalhealth and productivity, PA. | 134,000 | | 134,000 | | -134,000 | - - | |
| Center for rural studies, Vermont | 37,000 | | 37,000 | | -37,000 | - - | |
| Chesapeake Bay aquaculture, Maryland | 437,000 | | 437,000 | | -437,000 | - - | |
| Competitiveness of agriculture products, Washington | 800,000 | | 800,000 | | -800,000 | - - | |
| CONSOIL, Wisconsin | 75,000 | | - - | | - - | - - | |
| Controlled environmental production systems, PA | 240,000 | | 240,000 | | -240,000 | - - | |
| Cool season legume research | 387,000 | | 387,000 | | -387,000 | - - | |
| Cottonseed extraction and oil refining, TX. | 75,000 | | 75,000 | | -75,000 | - - | |
| Cranberry/blueberry disease & breeding, NJ | 260,000 | | 260,000 | | -260,000 | - - | |
| CRP acreage usage, MO. | - - | | 150,000 | | -150,000 | - - | |
| Dairy goat research, Prairie View A&M, TX. | 75,000 | | 75,000 | | -75,000 | - - | |
| Delta rural health care, Arkansas | - - | | 117,000 | | -117,000 | | |
| Delta rural revitalization, Mississippi | 175,000 | | 175,000 | | -175,000 | - - | |
| Dogwood anthracnose, GA, NC & TN | 137,000 | | 137,000 | | -137,000 | - - | |
| Dried bean research, ND | 100,000 | | 100,000 | | -100,000 | - - | |
| Eastern filbert blight, Oregon | 85,000 | | 85,000 | | -85,000 | - - | |
| Energy biomass/biofuels | - - | | 500,000 | | -500,000 | - - | |
| Entomology acoustics detection, MS | - - | | 200,000 | | -200,000 | - - | |
| Environmental research, New York | 575,000 | | 575,000 | | -575,000 | - - | |
| Expanded wheat pasture, Oklahoma | 337,000 | | 337,000 | | -337,000 | - - | |
| Export development, KY | 227,000 | | - - | | - - | - - | |
| Farm and rural business finance, IL & AR | 125,000 | | 125,000 | | -125,000 | - - | |
| Farm computer technology, Georgia | 100,000 | | - - | | - - | - - | |
| Fish marketing, OR & RI | 340,000 | | 340,000 | | -340,000 | - - | |
| Floriculture, Hawaii | 296,000 | | 296,000 | | -296,000 | - - | |
| Food & Agriculture Policy Institute, Iowa & Missouri | 750,000 | | 750,000 | | -750,000 | - - | |
| Food irradiation, IA | 237,000 | | 237,000 | | -237,000 | - - | |
| Food Marketing Policy Center, Connecticut | 393,000 | | 393,000 | | -393,000 | - - | |
| Food processing center, Nebraska | 50,000 | | 50,000 | | -50,000 | - - | |
| Food systems group, Wisconsin | 261,000 | | 261,000 | | -261,000 | - - | |

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Forestry marketing, VT and NH | $50,000 | | $50,000 | | -$50,000 | - - | |
| Forestry research, AR. | - - | | 500,000 | | -500,000 | - - | |
| Fruit & vegetable mrkt. analysis, AZ & MO | - - | | 350,000 | | -350,000 | - - | |
| Generic commodity promotion, NY, AL, TX, WI | - - | | 250,000 | | - - | - - | |
| Global change | 2,000,000 | | 1,250,000 | | +1,750,000 | $3,000,000 | |
| Global marketing support service, Arkansas | - - | | 50,000 | | -50,000 | - - | |
| Grass seed crop. system for sustainable ag. | - - | | 500,000 | | -500,000 | - - | |
| Grasshopper biocontrol, North Dakota. | 75,000 | | - - | | - - | - - | |
| Great Plains Agric. Policy Center, OK | 100,000 | | 50,000 | | -50,000 | - - | |
| Human nutrition, AR | - - | | 500,000 | | -500,000 | | |
| Human nutrition, Iowa. | 500,000 | | 500,000 | | -500,000 | - - | |
| Human nutrition, LA | 800,000 | | 800,000 | | -800,000 | - - | |
| Human nutrition, NY | 735,000 | | 735,000 | | -735,000 | - - | |
| Improved dairy management, PA | 335,000 | | 350,000 | | -350,000 | - - | |
| Improved fruit practices, MI | - - | | 525,000 | | -525,000 | - - | |
| Integrated pest management and biological control | 4,457,000 | | 3,228,000 | | +3,772,000 | 7,000,000 | |
| Integrated production systems, OK | 190,000 | | 190,000 | | -190,000 | - - | |
| International arid lands consortium | - - | | 350,000 | | -350,000 | - - | |
| Iowa Biotechnology Consortium | 2,000,000 | | 2,000,000 | | -2,000,000 | - - | |
| Jointed goatgrass control in wheat, WA. | - - | | 350,000 | | -350,000 | - - | |
| Livestock & dairy policy, NY & TX | 525,000 | | 525,000 | | -525,000 | - - | |
| Lowbush blueberry research, Maine | 185,000 | | 221,000 | | -221,000 | - - | |
| Low-input agric., MN | 230,000 | | 230,000 | | -230,000 | - - | |
| Maple research, VT | 99,000 | | 99,000 | | -99,000 | - - | |
| Massachusetts Biotechnology | 256,000 | | - - | | - - | - - | |
| Michigan Biotechnology Institute | 2,358,000 | | 2,358,000 | | -2,358,000 | - - | |
| Midwest Adv. Food Manufacturing Alliance | - - | | 500,000 | | -500,000 | - - | |
| Midwest agricultural products, Iowa | 700,000 | | 700,000 | | -700,000 | - - | |
| Midwest Biotechnology Consortium | 2,865,000 | | 2,865,000 | | -2,865,000 | - - | |
| Midwest feeds consortium | - - | | 500,000 | | -500,000 | - - | |
| Milk safety, PA | 184,000 | | 285,000 | | -285,000 | - - | |
| Minor crop pest control, Hawaii | 285,000 | | - - | | - - | - - | |
| Minor use animal drugs | 464,000 | | 650,000 | | - - | 650,000 | |
| Multi-commodity research, OR | 300,000 | | 300,000 | | -300,000 | - - | |
| Multi-cropping strategies for aquaculture, Hawaii | 150,000 | | 150,000 | | -150,000 | - - | |
| National Biological Impact Assessment Program | 300,000 | | 300,000 | | - - | 300,000 | |
| Nematode resistance genetic engineering, New Mexico | 150,000 | | 150,000 | | -150,000 | - - | |

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| New methods of weed control, ND | $500,000 | | $500,000 | | -$500,000 | - - | |
| New uses for agricultural products, Ohio. | 140,000 | | 140,000 | | -140,000 | _ _ | |
| Nonfood agricultural products, Nebraska | 110,000 | | 110,000 | | -110,000 | - - | |
| Oil resources from desert plants, NM | 200,000 | | 200,000 | | -200,000 | | |
| Oregon/Mass. Biotech. | - - | | 512,000 | | -512,000 | | |
| Peach tree short life, South Carolina. | 192,000 | | 192,000 | | -192,000 | - - | |
| Perishable commodities, Georgia | 250,000 | | 250,000 | | -250,000 | - - | |
| Pest control alternatives | 125,000 | | 125,000 | | -125,000 | - - | |
| Pesticide clearance | 3,500,000 | | 6,750,000 | | +4,050,000 | $10,800,000 | |
| Pesticide impact assessment | 2,968,000 | | 1,568,000 | | +1,400,000 | 2,968,000 | |
| Pesticide research, WA | 667,000 | | 667,000 | | -667,000 | - - | |
| Phytophthora root rot, New Mexico | 150,000 | | 150,000 | | -150,000 | - - | |
| Potato research | 1,435,000 | | 1,435,000 | | -1,435,000 | - - | |
| Potato utilization, ND | 250,000 | | - - | | - - | - - | |
| Poultry research, GA | 516,000 | | - - | | - - | - - | |
| Preservation and processing, Oklahoma | 267,000 | | 267,000 | | -267,000 | - - | |
| Procerum root disease, Virginia | 25,000 | | 25,000 | | -25,000 | - - | |
| Product development & marketing center, ME. | 221,000 | | 425,000 | | -425,000 | - - | |
| Red River Corridor, MN & ND | 200,000 | | 200,000 | | -200,000 | - - | |
| Regional barley gene mapping project | 412,000 | | 412,000 | | -412,000 | - - | |
| Regionalized implications of farm programs, MO & TX | 348,000 | | 348,000 | | -348,000 | - - | |
| Rural development centers | 500,000 | | 500,000 | | - - | 500,000 | |
| Rural environmental research, Illinois | 125,000 | | - - | | - - | - - | |
| Rural housing needs, NE | 80,000 | | 80,000 | | -80,000 | - - | |
| Rural policies institute, AR, NE, MO | 692,000 | | 525,000 | | -525,000 | - - | |
| Russian wheat aphid | 437,000 | | 537,000 | | -537,000 | - - | |
| Safflower research, N. Dakota & Montana | 250,000 | | - - | | - - | - - | |
| Seafood and aquaculture: harvesting, processing: marketing, MS | 361,000 | | 361,000 | | -361,000 | - - | |
| Seafood research, OR | 327,000 | | 325,000 | | -325,000 | - - | |
| Small fruit research, OR, WA, & ID | 187,000 | | 250,000 | | -250,000 | - - | |
| Soil and water research, Ohio | 240,000 | | 200,000 | | -200,000 | - - | |
| Southwest consortium for plant genetics & water resources | 400,000 | | 400,000 | | -400,000 | - - | |
| Soybean bioprocessing, Iowa | 328,000 | | 328,000 | | -328,000 | - - | |
| Soybean cyst nematode, Missouri | 359,000 | | 359,000 | | -359,000 | - - | |
| STEEP II - Water quality in Pacific Northwest | 980,000 | | 980,000 | | -980,000 | - - | |
| Stone fruit decline, MI | 283,000 | | - - | | - - | - - | |
| Subirrigation research, Michigan | 531,000 | | - - | | - - | - - | |

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Sunflower insects, ND and SD | $200,000 | | $150,000 | | -$150,000 | - - | |
| Sustainable ag., MI | - - | | 525,000 | | -525,000 | - - | |
| Sustainable agriculture and natural resources, PA | 100,000 | | 100,000 | | -100,000 | - - | |
| Sustainable agriculture systems, NE | 70,000 | | 70,000 | | -70,000 | - - | |
| Swine research, MN | 140,000 | | 140,000 | | -140,000 | - - | |
| Taxol cultivation, CT. | - - | | 50,000 | | -50,000 | - - | |
| TCK smut (wheat) | 250,000 | | - - | | - - | - - | |
| Tillage, silviculture, waste mgmt, LA | - - | | 250,000 | | -250,000 | - - | |
| Tropical and subtropical research | 3,320,000 | | 3,320,000 | | -3,320,000 | - - | |
| Urban pests, Georgia | 76,000 | | 76,000 | | -76,000 | - - | |
| Value-added wheat product develop., KS. | - - | | 250,000 | | -250,000 | - - | |
| Waste utilization, NC. | - - | | 440,000 | | -440,000 | - - | |
| Water conservation, KS | 94,000 | | 94,000 | | -94,000 | - - | |
| Water conservation, NV | 200,000 | | 200,000 | | -200,000 | - - | |
| Water management, AL | 398,000 | | 398,000 | | -398,000 | - - | |
| Water quality | 8,950,000 | | 4,500,000 | | - - | $4,500,000 | |
| Wheat genetics, KS | 159,000 | | 209,000 | | -209,000 | - - | |
| White mold research, OH | 55,000 | | - - | | - - | - - | |
| Wild rice research, MN | 88,000 | | - - | | - - | - - | |
| Wood utilization | 4,153,000 | | 4,443,000 | | -4,443,000 | - - | |
| Wool research | 250,000 | | 250,000 | | -250,000 | - - | |
| World food systems, Indiana and Ohio | 368,000 | | - - | | - - | - - | |
| Federal Admin. (4%) | (2,936,440) | | (2,916,680) | | (-1,727,960) | (1,188,720) | |
| Total | 73,411,000 | | 72,917,000 (a) | | -43,199,000 | 29,718,000 | |
| Critical Agricultural Materials Act of 1984 | | | | | | | |
| Research program | 388,000 | | 485,000 | | -485,000 | - - | |
| Federal Admin. (3%) | 12,000 | | 15,000 | | -15,000 | - - | |
| Total | 400,000 | | 500,000 | | -500,000 | - - | |
| Rangeland Research Grants (Subtitle M): | | | | | | | |
| Research program | 460,750 | | 460,750 | | - - | 460,750 | |
| Federal Admin. (3%) | 14,250 | | 14,250 | | - - | 14,250 | |
| Total | 475,000 | | 475,000 | | - - | 475,000 | |
| Aquaculture Centers, Section 1475: | | | | | | | |
| Research program | 3,880,000 | | 3,880,000 | | - - | 3,880,000 | |
| Federal Admin. (3%) | 120,000 | | 120,000 | | - - | 120,000 | |
| Total | 4,000,000 | | 4,000,000 | | - - | 4,000,000 | |
| Sustainable Agriculture: | | | | | | | |
| Program | 6,523,250 | | 7,178,000 | | +1,382,250 | 8,560,250 | |
| Federal Admin. (3%) | 201,750 | | 222,000 | | +42,750 | 264,750 | |
| Total | 6,725,000 | | 7,400,000 | | +1,425,000 | 8,825,000 | |
| Supplemental and Alternative Crops, Sec. 14730: | | | | | | | |
| Crambe/Rapeseed | 500,000 | | 500,000 | | -500,000 | - - | |
| Guayule research | 668,000 | | 668,000 | | -668,000 | - - | |
| Canola research | - - | | 500,000 | | -500,000 | - - | |
| Hesperaloe research | - - | | 150,000 | | -150,000 | - - | |
| Advanced Materials | - - | | - - | | +1,818,000 | 1,818,000 | |
| Federal Admin. (3%) | (35,040) | | (54,540) | | - - | (54,540) | |
| Total | 1,168,000 | | 1,818,000 | | - - | 1,818,000 | |

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| State Agricultural Weather Information System, Sec. 1640 | $388,000 | | - - | | - - | - - | |
| Federal Admin. (3%) | 12,000 | | - - | | - - | - - | |
| Total | 400,000 | | - - | | - - | - - | |
| | 86,579,000 | 37 | $87,110,000 | 38 | -$42,274,000 (1) | $44,836,000 | 38 |
| 5.National Research Initiative (NRI): | | | | | | | |
| Natural Resources and the Environment | 18,000,000 | | 23,750,000 | | +3,250,000 | 27,000,000 | |
| Nutrition, Food Safety, & Health | 6,500,000 | | 8,000,000 | | +3,000,000 | 11,000,000 | |
| Plants | 40,000,000 | | 43,900,000 | | +3,100,000 | 47,000,000 | |
| Animals | 25,000,000 | | 25,000,000 | | +4,500,000 | 29,500,000 | |
| Processing for Adding Value or Developing New Products | 4,000,000 | | 7,500,000 | | +1,500,000 | 9,000,000 | |
| Markets, Trade, and Rural Development | 4,000,000 | | 4,000,000 | | +2,500,000 | 6,500,000 | |
| Federal Admin. (4%) | (3,900,000) | | (4,486,000) | | (+714,000) | (5,200,000) | |
| Total | 97,500,000 | 67 | 112,150,000 | 74 | +17,850,000 (2) | 130,000,000 | 84 |
| 6.Animal Health and Disease Research, Section 1433: | | | | | | | |
| Research program | 5,328,960 | | 5,328,960 | | - - | 5,328,960 | |
| Federal Admin. (4%) | 222,040 | | 222,040 | | - - | 222,040 | |
| Total | 5,551,000 | 2 | 5,551,000 | 2 | - - | 5,551,000 | 2 |
| 7.Federal Administration (Direct App.): | | | | | | | |
| Ag development in American Pacific | - - | | 647,000 | | -647,000 | - - | |
| Center for No. American Studies, TX | - - | | 100,000 | | -100,000 | - - | |
| Gulf Coast shrimp aquaculture | 3,500,000 | | 3,500,000 | | -3,500,000 | - - | |
| Mississippi Valley State University | 668,000 | | 668,000 | | -668,000 | - - | |
| Iowa State-Center for Ag. & Rural Dev. | 750,000 | | 750,000 | | -750,000 | - - | |
| Geographic Information System Pilot Program | 1,000,000 | | 1,075,000 | | -1,075,000 | - - | |
| Vocational Agriculture Curriculum,Aquaculture | 500,000 | | 500,000 | | -500,000 | - - | |
| Maize Genetics Research Center, Univ. of ND | 400,000 | | - - | | - - | - - | |
| Herd Management Prog., Tennessee State Univ. | 475,000 | | 613,000 | | -613,000 | - - | |
| Alternative Fuels Characterization Lab, University of NO | 250,000 | | 250,000 | | -250,000 | - - | |
| Water Quality, So. Illinois University | 750,000 | | 750,000 | | -750,000 | - - | |
| Water Quality, Univ. of North Dakota | 500,000 | | 500,000 | | -500,000 | - - | |
| Office of Grants and Program Systems | 334,000 | | 334,000 | | -226,000 | $108,000 | |
| Office of Agricultural Biotechnology | 400,000 | | 400,000 | | - - | 400,000 | |
| Ag in the Classroom | 208,000 | | 208,000 | | -208,000 | - - | |
| Peer Panels | 260,000 | | 260,000 | | +240,000 | 500,000 | |
| PM-10 study, CA & WA | | | 1,000,000 | | -1,000,000 | - - | |
| Previous Year Pay Costs | 550,000 | | 550,000 | | - - | 550,000 | |
| New Pay Costs | - - | | - - | | +125,000 | 125,000 | |
| 1890 Capacity Building Grants | 10,250,000 | | 10,550,000 | | - - | 10,550,000 | |
| Administrative overhead | - - | | - - | | -48,000 | (48,000) | |
| Staff year reduction | - - | | - - | | -294,000 | (294,000) | |
| Total | 20,795,000 | 15 | 22,655,000 (b) | 15 | -10,764,000 (3) | 11,891,000 | 15 |

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 8.Higher Education: | | | | | | | |
| Graduate Fellowships Grants ..... | $3.500.000 | | $3.500.000 | | - - | $3.500.000 | |
| Institution Challenge Grants ..... | 1.500.000 | | 1.500.000 | | - - | 1.500.000 | |
| Morrill-Nelson Funds (Permanent Appro.) .. | 2.850.000 | | 2.850.000 | | - - | 2.850.000 | |
| Multicultural Scholars Program ..... | - - | | 1.000.000 | | - - | 1.000.000 | |
| Federal Admin. (3%) .. | (150.000) | | (180.000) | | - - | (180.000) | |
| Total ..... | 7.850.000 | 9 | 8.850.000 | 11 | - - | 8.850.000 | 11 |
| Total Available or estimate ..... | 432.993.000 | 206 | 456.586.000 | 216 | -35.188.000 | 421.398.000 | 226 |

(a) A rescission of $20.213.000 million has been proposed for fiscal year 1994.

(b) A rescission of $9.789.000 million has been proposed for fiscal year 1994.

## EXPLANATION OF PROGRAM

The funds appropriated for the Cooperative State Research Service (CSRS) provide the Federal Government's support for research and education programs at land-grant agricultural experiment stations, approved schools of forestry, the 1890 land-grant institutions and Tuskegee University, colleges of veterinary medicine, and other eligible institutions in the fifty States and in Puerto Rico, Guam, the Virgin Islands, the District of Columbia, American Samoa, Micronesia, and the Northern Mariana Islands.

The State institutions conduct research and experiments on the problems continuously encountered in the development of a permanent and sustaining agriculture and forestry, and in the improvement of the economic and social welfare of rural and urban families. Because of differences in climate, soil, market outlets, and other local conditions, each State has distinct problems in the production and marketing of crops and livestock. Farmers, foresters, and rural people in the individual States naturally look to their State Agricultural Experiment Stations, universities, and colleges for solution of the State and local problems and request services to help meet changing conditions.

Research programs at State institutions, to be most effective, include participation in regional and national programs. Joint effort by a group of State institutions is the most effective and often the only practical approach to problems of common interest. The stations are acting together as regional groups to provide cooperative, coordinated attacks on problems of regional and national interest. In a similar manner, the research programs of the State institutions and the Department of Agriculture are complementary and interdependent.

The Federal formula funds constitute a powerful force in bringing about inter-State cooperation and Federal-State collaboration in the planning and conduct of this overall program of agricultural research. Therefore, the impact of the Federal formula funds is far greater than would be expected solely on the basis of the amount of funds provided.

Research at the State institutions is organized into a program of projects that is submitted for approval by the Cooperative State Research Service. The program of projects is financed wholly or in part from Federal formula and grant funds. Programs and projects are evaluated periodically with station scientists by administrators and scientific staff of the Cooperative State Research Service. The evaluation includes consideration of quality and productivity of the program and projects. The continuing process of research evaluation by station scientists and the staff of the Cooperative State Research Service results in a dynamic program with approximately 15 to 20 percent of the projects being replaced by new and/or revised projects each year.

The Department's higher education mission is carried out in strong alliance with States, universities, and the private sector. Recognizing the significance of this alliance, the Food and Agriculture Act of 1977 designated USDA as the lead Federal agency for higher education in the food and agricultural sciences. Through the CSRS Office of Higher Education Programs, USDA has implemented that charge with a broad array of initiatives to link teaching, research, and extension and improve the training of food and agricultural scientists and professionals. Most of these efforts were informal until 1984, when the Department initiated the National Needs Graduate Fellowships Grants Program to develop expertise in areas with scientific shortages. This role was expanded significantly in recent years by implemention of the Higher Education Challenge Grants Program, the 1890 Institution Teaching and Research Capacity Building Grants Program, and the

Higher Education Multicultural Scholars Program, all of which are intended to strengthen the quality of education programs at U.S. colleges and universities.

Appropriations for the Cooperative State Research Service activities are authorized under the following Acts:

1. Payments to agricultural experiment stations under the Hatch Act
Agricultural Experiment Stations Act of August 11, 1955, Hatch Act of 1887 as amended - 7 U.S.C. 361a-361i, Public Law 92-318; Public Law 93-471; Public Law 95-113, as amended; Public Law 95-134; Public Law 96-205; Public Law 96-374; Public Law 96-597; Public Law 97-98; Public Law 98-213; Public Law 98-454; Public Law 99-198; Public Law 99-396; Public Law 101-624.

Funds under the Hatch Act are allocated to the State Agricultural Experiment Stations of the 50 States, District of Columbia, Puerto Rico, Guam, the Virgin Islands, Micronesia, American Samoa, and Northern Mariana Islands for research to promote a sound and prosperous agriculture and rural life. The Hatch Act provides that the distribution of Federal payments to States for fiscal year 1955 shall become a fixed base and that any sums appropriated in excess of the 1955 level shall be distributed in the following manner:

- -20% shall be allotted equally to each State.
- -not less than 52% shall be allotted to the States as follows:
  - one-half in an amount proportionate to the relative rural population of each State to the total rural population of all States, and
  - one-half in an amount proportionate to the relative farm population of each State to the total farm population of all States.
- -not more than 25% shall be allotted to the States for cooperative research in which two or more State Agricultural Experiment Stations are cooperating to solve problems that concern the agriculture of more than one State.
- -3% shall be available to the Secretary of Agriculture for the administration of this Act.

The Act also provides that any amount in excess of $90,000 available for allotment to any State, exclusive of the regional research fund, shall be matched by the State out of its own funds available for research, and for the establishment and maintenance of facilities necessary for the performance of such research. Also, in the case of Guam, the Virgin Islands, Micronesia, American Samoa, and Northern Mariana Islands, agencies are required by law to waive any requirement for local matching funds under $200,000. If any State fails to make available a sum equal to the amount in excess of their matching requirement to which it may be entitled, the remainder of such amount shall be withheld by the Secretary of Agriculture and reapportioned among the States.

Three percent of funds appropriated under the Hatch Act is set-aside for Federal administration. Administration includes disbursement of funds and a continuous review and evaluation of the research programs of the State Agricultural Experiment Stations supported wholly or in part from Hatch funds. The Cooperative State Research Service encourages and assists in the establishment of cooperation within and between the States, and also actively participates in the planning and coordination of research programs between the States and the Department at the regional and national levels.

2. Cooperative Forestry Research - The Cooperative Forestry Research Act of October 10, 1962, 16 U.S.C. 582a-7; Public Law 96-374; Public Law 97-98; Public Law 99-198; Public Law 101-624.

The Act authorizes funding of research in State institutions certified by a State representative designated by the governor of each State. The Act provides that appropriated funds be apportioned among States as determined by the Secretary after consultation with a national advisory council of not fewer than sixteen members representing Federal and State agencies concerned with developing and utilizing the Nation's forest resources, the forest industries, the forestry schools of the State-certified eligible institutions, State Agricultural Experiment Stations, and volunteer public groups concerned with forests and related natural resources. Determination of apportionments follows consideration of pertinent factors including areas of non-Federal commercial forest land, volume of timber cut from growing stock, and the non-Federal dollars expended on forestry research in the State. The Act also provides that payments must be matched by funds made available and budgeted from non-Federal sources by the certified institutions for expenditure for forestry research. Three percent of funds appropriated under this Act is set-aside for Federal administration.

3. Payments to 1890 Colleges and Tuskegee University - The National Agricultural Research, Extension, and Teaching Policy Act of 1977, Section 1445, Public Law 95-113; Public Law 95-547; Public Law 97-98; Public Law 99-198; Public Law 101-624.

Public Law 95-113, as amended, provides for support of continuing agricultural research at colleges eligible to receive funds under the Act of August 30, 1890, including Tuskegee University. Beginning with fiscal year 1979, there shall be appropriated funds for each fiscal year, an amount not less than 15 percent of the total for such year under Section 3 of the Act of March 2, 1887. Distribution of payments made available under section 2 of the Act of August 4, 1965, for fiscal year 1978 are a fixed base and sums in excess of the 1978 level shall be distributed as follows:

-3% shall be available to the Secretary of Agriculture.
-Payments to States in fiscal year 1978 is a fixed base. Of funds in excess of this amount:
20% shall be allotted equally to each State.
40% shall be allotted in an amount proportionate to the rural population of the State in which the eligible institution is located to the total rural population of all the States in which eligible institutions are located, and
40% shall be allotted in an amount proportionate to the farm population of the State in which the eligible institution is located to the total farm population of all the States in which eligible institutions are located.

Allotments to Tuskegee University and Alabama A&M University shall be determined as if each institution were in a separate State. Three percent of the funds appropriated under this Act is set-aside for Federal administration.

4. Special Research Grants- Section 2(c), Act of August 4, 1965, 7 U.S.C. 450i(c), as amended by Public Law 95-113; Public Law 97-98; Public Law 98-284; Public Law 99-198; Public Law 101-624.

Section 2(c) of the Act of August 4, 1965, as amended, authorizes Special Research Grants for periods not to exceed five years to State Agricultural Experiment Stations, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations or corporations, and individuals for the purpose of conducting research to facilitate or expand promising breakthroughs in areas of the food and agricultural sciences of importance to the United States; and to State Agricultural Experiment Stations, land-grant colleges and universities, research foundations established by land-grant colleges and universities,

colleges and universities receiving funds under the Act of October 10, 1962, and accredited schools or colleges of veterinary medicine for the purpose of facilitating or expanding ongoing State-Federal food and agricultural research programs. Special Research Grants are awarded on the discretionary basis as well as using a competitive peer panel process in the selection of proposals to be funded. Four percent of funds appropriated for this program is set-aside for Federal administration.

Research grants are also awarded under the Critical Agricultural Materials Act, Public Law 98-284, as amended. Rangeland Research Grants are awarded in accordance with Subtitle M of Public Law 97-98. Grants are awarded to aquaculture centers under section 1475(d) of Public Law 95-113, as amended. Grants for supplemental and alternative crops are awarded under section 1473D of Public Law 95-113. Grants for sustainable agriculture research and education are awarded under section 1621 of Public Law 101-624. Three percent of funds appropriated for these programs is set-aside for Federal administration.

5. National Research Initiative Competitive Grants - Section 2(b), Act of August 4, 1965, 7 U.S.C. 450i(b), as amended by Public Law 95-113; Public Law 97-98; Public Law 99-198; Public Law 101-624.

Section 2(b) of the Act of August 4, 1965, as amended, authorizes Competitive Research Grants for periods not to exceed five years to State Agricultural Experiment Stations, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations or corporations, and individuals to further the programs of the Department of Agriculture. By obtaining the participation of outstanding researchers in the entire U.S. scientific community, emphasis will be placed on research in the areas of natural resources and the environment; nutrition, food safety, and health; plants; animals; markets, trade and rural development; and processing for adding value or developing new products. Four percent of funds appropriated for this program is set-aside for Federal administration.

6. Animal Health and Disease Research - The National Agricultural Research, Extension, and Teaching Policy Act of 1977, Section 1433, Public Law 95-113; Public Law 97-98; Public Law 99-198; Public Law 101-624.

Section 1433 provides for support of livestock and poultry disease research in accredited schools or colleges of veterinary medicine or State Agricultural Experiment Stations that conduct animal health and disease research. These funds shall be distributed as follows:

- -4% shall be retained by the Department of Agriculture for administration, program assistance to the eligible institutions, and program coordination.
- -48% shall be distributed in an amount proportionate to the value of and income to producers from domestic livestock and poultry in each State to the total value of and income to producers from domestic livestock and poultry in all the States.
- -48% shall be distributed in an amount proportionate to the animal health research capacity of the eligible institutions in each State to the total animal health research capacity in all the States.

Eligible institutions must provide non-Federal matching funds in States receiving annual amounts in excess of $100,000 under this authorization.

7. Federal Administration (direct appropriation) - Authority for direct appropriations is provided in the annual Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriations Act. These funds are used to provide support services in connection with planning and

coordination of all programs administered by Cooperative State Research Service. Certain research and higher education program grants, including the 1890 Institution Teaching and Research Capacity Building Grants Program, are also funded under this item.

8. Higher Education - The National Agricultural Research, Extension, and Teaching Policy Act of 1977, Section 1417, Public Law 95-113; Public Law 97-98; Public Law 99-198; Second Morrill Act of 1890; Public Law 100-339; Public Law 101-624.

Higher Education-Graduate Fellowships Grants pursuant to Section 1417(b)(6) are awarded on a competitive basis to colleges and universities to conduct graduate training programs to stimulate the development of food and agricultural scientific expertise in targeted national need areas. Typically graduate students in the food and agricultural sciences require a minimum of four years to complete a doctoral degree. The USDA fellowships program provides support for doctoral study for three years, and the universities are expected to support the student's fourth year of dissertation research. Three percent of funds appropriated for this program is set-aside for Federal administration.

Institution Challenge Grants pursuant to Section 1417 (b)(1) are designed to stimulate and enable colleges and universities to provide the quality of education necessary to produce graduates capable of strengthening the Nation's food and agricultural scientific and professional work force. All federal funds awarded under this program must be matched by the universities on a dollar-for-dollar basis from non-Federal sources. Three percent of funds appropriated for this program is set-aside for Federal administration.

The Higher Education Multicultural Scholars Program pursuant to Section 1417 (b)(5) will increase the ethnic and cultural diversity of the food and agricultural scientific and professional work force and advance the educational achievement of minority Americans. It is open to all colleges and universities with baccalaureate or higher degrees in Agriculture, Forestry, Natural Resources, Home Economics, Veterinary Medicine, and closely allied fields. Federal funds provide 75 percent of the four-year scholarship awards; the remaining 25 percent is contributed by the grantee institutions. Three percent of funds appropriated for this program is set-aside for Federal administration.

Higher education in the food and agricultural sciences at the land-grant institutions is also supported through a permanent appropriation in the Second Morrill Act of 1890, as amended. Each state and territory receives $50,000 per year.

Audit Reports

#13545-1-HY, 10/01/92, audit report of Pennsylvania State University for the fiscal year ended 06/30/90 (closed).

#13545-2-HY, 11/13/92, audit report of Pennsylvania State University for the fiscal year ended 06/30/91 (closed).

#50563-85-KC, 03/01/93, OMB Circular A-133 audit of Lincoln University, Missouri, for the fiscal year ended 06/30/92 (closed).

#50563-90-SF, 07/13/93, OMB Circular A-110 audit of Northern Marianas College for the two year period ended 09/30/90 (open).

#50563-202-AT, 08/05/93, OMB Circular A-128 audit of Fort Valley State College for the fiscal year ended 06/30/89 (open).

#50568-109-HY, 12/23/92, OMB Circular A-128 audit of the University of Puerto Rico for the fiscal years ended 06/30/87 and 06/30/88 (open).

#50568-257-KC, 03/19/93, OMB Circular A-128 audit of the state of Iowa for the fiscal year ended 06/30/91 (closed).

#50568-263-KC, 07/13/93, OMB Circular A-128 audit of the state of Montana for the two years ended 06/30/91 (open).

#50568-494-SF, 11/04/92, OMB Circular A-128 audit of the University of Idaho for the two years ended 06/30/91 (closed).

#50568-521-SF, 06/01/93, OMB Circular A-128 audit of the state of Washington for the fiscal year ended 06/30/91 (closed).

#PS-0299-0022, 12/21/92, hotline complaint - University of Georgia (open).

#PS-1399-0005, 11/19/92, hotline complaint - University of Washington (closed).

Audits In Progress

#13099-2-KC, 08/23/93, discussion draft, Grantee Compliance with Small Business Innovation Research Program Provisions (open).

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A net decrease of $42,274,000 for Special Research Grants and Critical Agricultural Materials Act ($87,110,000 available in 1994) consisting of:

(a) An increase of $1,750,000 for the Global Change Special Research Grant ($1,250,000 available in 1994 for UV-B monitoring).

Need for Change. A somewhat distinct, but very important, facet of Global Change Research is the observation and analysis of ultraviolet-B (UV-B) radiation. UV-B is subject to being changed by a variety of chemicals used for refrigeration and many other purposes which have been and are being released into the stratosphere. These chemicals destroy stratospheric ozone, which filters out some of the UV-B that could reach the earth. During the last several years, there have been indications that, as a result of stratospheric ozone destruction, there could be an increase of UV-B radiation at the earth's surface. There is a lack of data on the geographical and temporal trends in UV-B radiation. A monitoring network is essential to determine these trends as this part of the solar spectrum can be detrimental to crops, trees, animals, and humans. The increase requested is needed for expansion of the monitoring network begun by CSRS. This network has been reviewed and coordinated with other Federal research agencies through the U.S. Global Change Research Program.

Nature of Change. Funding for the UV-B monitoring network will be used to bring the new network closer to complete operational status for obtaining UV-B information at ground level. As envisioned, the overall operation of this program will include development of 8 to 10 intensive sites at which sophisticated research instruments will be used to collect very high quality data. The network will also deploy some less costly field instruments which will provide UV-B trends and status information. Essential to operation of the network is a laboratory to periodically

recalibrate and recharacterize the UV-B instruments in order to maintain data quality. A network is being built with the capacity to utilize data from both research and field instruments, and to make the data available to scientists and the public. The purpose of the network is to provide a database of UV-B radiation in the United States, which is complementary to similar networks in other parts of the world. When valid baseline information has been obtained it will be possible to determine where UV-B increases, decreases, or stability are occurring. If increases of significant levels are observed, action to adapt to the changes could be initiated. Creating a national UV-B monitoring network requires a sustained, mission-focused, programmatic effort to develop instrumentation, and establish and maintain linked research sites to provide baseline data for agricultural research which can best be accomplished under this special research grant. Fundamental studies of responses of plants and animals to UV-B are under way in the National Research Initiative, as well as basic and applied science conducted through the State Agricultural Experiment Stations.

(b) An increase of $3,772,000 for Integrated Pest Management and Biological Control Special Research Grant ($3,228,000 available in 1994).

Need for Change. Major innovations are needed to effect change in the way crop pests are controlled. Over 500 pest species are resistant to their pesticides, few new pesticides are being developed, and those presently available are being lost due to regulatory use restrictions or due to mandated re-registration. Agricultural producers are facing unprecedented economic and regulatory challenges in their production of crops. It is the responsibility of USDA and its partner State Land-Grant Universities to lead the innovation in pest control methods and programs that give producers an economic edge in the global markets while protecting and improving the quality of our environment and the safety and quality of our food and feeds.

CSRS in partnership with the leadership of the Land-Grant University System has set the stage for development of innovative crop protection that meets economic and environmental needs in a plan entitled "Blueprint for Integrated Pest Management for the 21st Century." This plan is the basis for the CSRS Regional IPM Program. This plan builds upon the transition that has occurred in the Land-Grant University system. Today's focus of the scientific expertise of the system is toward the development and implementation of natural controls of pests (biological control, host resistance, and cultural controls) which serve as the basis for the development of alternative pest management technologies. Today's focus is for close linkages with research and implementation programs to address alternative pest management technologies for multiple pest problems in production systems.

Today, over 450 scientists and extension specialists are working on the development and implementation of biological control, the first priority for increased research and implementation emphasis for alternative pest management. Coordination mechanisms proposed last year provide new opportunities for implementation of biological control. A National Biological Control Program (NBCP) has been proposed by CSRS, APHIS, ARS, ES, and FS. The NBCP is ultimately expected to allow for greater coordination among USDA agencies and University research and extension programs and make it possible to launch coordinated basic and applied research, demonstration, and education programs. Each of the USDA agencies involved in the NBCP have unique and interdependent strengths to bring to this initiative. Program change is needed to fuel a flourishing and rapidly emerging industry in pest management. This industry of the future will be a new kind of industry, being targeted to narrow, specialized market niches such as for the production and commercialization of

biological control agents. The industry needs to be supported by the development of a research base which includes all modern technologies, including biotechnology. The products of this industry will require a framework for implementation which can be provided by the CSRS IPM programs.

The Administration has made the reduction of risk from the use of pesticides a top priority. In June 1993, USDA, along with the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA), announced a joint initiative to reduce pesticide use risks by emphasizing Integrated Pest Management and sustainable agricultural practices. This special research grant supports the Administration's initiative.

Nature of Change. The Integrated Pest Management Special Research Grant program is administered by CSRS through four, regional competitive grants programs. Each region has an established IPM grants program that reflects both the special needs of the region and the overall programmatic direction provided by ESCOP and CSRS. A $7.0 million program will allow for regional IPM programs in two program areas: Biological Control and Integrative Research. All projects and programs are funded through a peer review competitive grant process.

**Biological Control ($2.2 million, an increase of $1.684 million over 1994).** CSRS will develop and implement biological control solutions to pest management systems through a coordinated state and federal program. This program will continue to discover, develop and implement biological control organisms and methods of use against pests such as various fruit flies, including mole cricket, Mediterranean fruit fly, gypsy moth, codling moth, various aphids, boll weevil, root knot and soybean cyst nematodes, citrus canker, citrus tristeza virus, soil borne diseases, various pests of stored grains, fruits, and nuts, and facefly, stablefly and housefly.

**Integrative Research ($4.8 million, an increase of $2.088 million over 1994).** This increase will permit expansion of systems research and joint research/extension projects such as the implementation of IPM for vegetable cropping systems in the North Central Region which emerges from a decade of innovative research. This research/implementation program focuses on multiple strategies to manage multiple pests, fertilizer use and irrigation practices, in a multi-commodity production system. Resources will also be used to initiate demonstration programs with ARS, APHIS, ES, and other USDA agencies and EPA on areawide pest management systems that will interface multi-commodity and multi-pest IPM systems with areawide pest management approaches. Areawide pest management systems will expand on the successes of IPM programs in the State Agricultural Experiment Stations, Cooperative Extension system, ARS, and APHIS and provide the mechanism for increased collaboration with the other agencies of USDA and with EPA to demonstrate improved IPM systems. This component of the program also provides support for application technology, cultural control, host plant resistance, resistance management, and for emerging pest problems that address priority IPM system needs, such as the outbreak of a new strain of Late Blight fungus in the Northeast.

This special research grant program complements the National Research Initiative (NRI) by developing innovative information from the NRI program. Regional IPM funds provide the critical conduit that takes basic fundamental knowledge and develops pest, crop, and region specific crop and pest management systems and identifies basic research priorities where information gaps impede the development of alternative pest management strategies.

(c) An increase of $4,050,000 for Pesticide Clearance Special Research Grant ($6,750,000 available in 1994).

Need for Change. The 1988 amendments to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) have created a serious potential loss of over 3,500 pesticide uses important to minor crop farmers. If American agriculture is to have available the legally registered materials necessary to provide for a wholesome and nutritious diet for the consuming public and to supply them with the ornamental plants to beautify their environment, it is essential to meet these regulatory demands.

The 1988 FIFRA amendments greatly accelerated the need for reregistration of many currently used pesticides. Reregistration of previously registered pesticides will require redoing much of the original research using current state-of-the-art technology. There is no patent protection and very little economic incentive for commercial companies to reregister these older pesticides, especially for minor uses. In contrast, the economics to the user are excellent, and further, these older pesticides have been researched and incorporated into sound environmental management systems. Their loss would be a severe restriction to pest management programs.

CSRS appointed a review team comprised of representatives of State Agricultural Experiment Stations, Federal agencies involved in IR-4, the pesticide industry, and producer groups to examine the IR-4 program. Their report (February 1991) concluded that IR-4 needs a significant increase in its direct funding in order to serve the needs of the $19.3 billion minor crop industry in a timely and comprehensive fashion. A GAO audit noted that "IR-4 officials believe that the IR-4 research grant project makes effective use of its limited resources... This is because IR-4 uses the existing land-grant university infrastructure, targets its research agenda to include those pesticide uses most likely to be approved by EPA, and annually reviews its research priorities." The report concludes with criticism of "...USDA... (having) been slow to respond to the need for pesticides on minor crops, even though IR-4 officials at the regional level developed a strategic plan in 1989 to address this need."

Nature of Change. The increased support is required for the expansion of the reregistration process for minor use agricultural commodities and the initial registration of safer and more environmentally compatible pesticides. The Administration's working group on food safety and pesticide use issues identified the minor use crop issue as a priority. This request supports the Administration's initiative to reduce the risk from the use of pesticides. IR-4 will dedicate 15 percent of increased funding to research biological control agents. FY 1993 funds for biological control were approximately $500,000. The program is addressing requests for assistance in the registration of both food and ornamental crops. IR-4 receives about 275 valid requests from growers, extension personnel, research scientists and ranchers each year and has a large backlog of valid researchable requests, currently approaching 2,200. These increased funds will support the completion of significantly more tolerance projects. At the proposed level of funding, IR-4 expects to complete about 560 projects per year. The deadline for completion of reregistration mandated by FIFRA 88 amendments is 1998. Thus, with this increased level of funding, and if continued through 1998, IR-4 will support an estimated 2,240 projects for new registration and reregistration which is 67 percent of all current requests and backlogs. To meet these demands, the research activities of the IR-4 program will be expanded to include additional field experiments and the resultant chemical analyses for residues. All requests are rigorously reviewed and addressed in order of priority. Producers can increase the priority of their request by contributing funding. IR-4 staff encourage producers to contribute to the cost of reregistration. The final product of the increased support will be an increased number of chemical

and biological products available for use on minor crops. The research efforts of IR-4 are long term and highly mission oriented, requiring stable funding which cannot be achieved through the competitive NRI process. Further, the NRI supports fundamental areas of science which is in contrast to the IR-4's highly focused and applied research.

(d) An increase of $1,400,000 for the Pesticide Impact Assessment Special Research Grant ($1,568,000 available in 1994).

Need for Change. Regulatory reforms resulting from concerns about the impact of pesticides on man and the environment have resulted in an EPA program to reregister all pesticides registered prior to 1985. This EPA special review process examines the data previously submitted in support of those registered uses and determines areas of missing, incomplete or inadequate data. In order to make regulatory decisions, EPA requests data from both public and private sectors. The FIFRA amendments of 1988 have resulted in an acceleration of the rate of EPA special reviews for the reregistration process. In 1991, the Department implemented a new organizational structure for the National Agricultural Pesticide Impact Assessment Program (NAPIAP), which has significantly reduced the response time to EPA with Assessment Reports. That structure has also enabled a more rapid and effective process to generate and collect research data which contributes directly to assessments and to other aspects of reregistration.

Nature of Change. The increased funds will be used to support university scientists on additional assessment teams formed to meet the demands of these FIFRA 88 mandated special reviews. In addition, these funds will be used to support research on innovative methods to assess pesticide impacts. Areas of emphasis would include computer models designed to examine the impacts of various factors on crop yield, quality and profitability, and use of electronic data systems to accelerate the data gathering and enhance the data utilization processes. The assessment team efforts and supporting research will place NAPIAP in a strong position to promote informed regulatory decisions on registered pesticides that significantly benefit U.S. agriculture without causing adverse effects to humans or the environment.

The NAPIAP mandate is to provide specific assessment information on benefits of pest control agents. This must be done rapidly, in a highly focused manner and in highly applied agricultural and environmental settings under this special research grant. The NRI supports very fundamental areas of science and projects which are wide ranging in scope; this competitive process would not allow NAPIAP to be able to perform its functions effectively.

(e) A decrease of $43,199,000 for Special Research Grants and $500,000 for the Critical Agricultural Materials Act.

Need for Change. These grants programs have concentrated on specific problems beyond the normal emphasis in the formula based programs. The Hatch Act and related formula based programs constitute the core of the State-Federal research partnership and, when put together with State funding, provide the basic laboratory facilities, scientists, graduate students, and support necessary for the long term stability of agricultural research. Thus, these formula based programs become the highest priority of the State-Federal research partnership. Selected high priority National interest special research grant programs are proposed for expansion or continuation.

Nature of Change. This change will eliminate this specific funding support for selected grant programs. Due to the discretionary nature of the Hatch Act and related formula based programs, amounts allotted to State institutions permit the institutions to fund research in those areas that they identify as high priority. This flexibility could provide for maintaining some of the programs if the State institutions wish to continue the research. These projects could also be submitted for competition and possible funding under the National Research Initiative.

(f) An increase of $1,425,000 for Sustainable Agriculture ($7,400,000 available in 1994).

Need for Change. Sustainable agriculture is a rapidly emerging concept related to both farming practices and quality of life for farmers and ranchers, members of rural communities, and society as a whole. The Sustainable Agriculture Research and Education Program (SARE) is a major catalyst for the evolution of a philosophy of sustainable development, and facilitator of alternative agricultural systems for the future. In addition to fostering the Administration's commitment to reduce the use of chemical pesticides, SARE research and education projects are designed to reduce fertilizers and toxic materials in agricultural production; improve low-input farm management that enhances agricultural productivity, profitability and competitiveness; promote crop and livestock enterprise diversification; study systems that rely on low-input and conservation practices; use experience and expertise of farmers through direct participation and leadership; transfer practical and timely sustainable agriculture information to farmers; and promote new and meaningful partnerships among farmers, non-profit private organizations, government, academic and agribusiness.

Since 1988, 2,074 SARE (LISA) proposals have been submitted requesting more than $200 million. Approximately half of the proposals were relevant to sustainable agriculture and of high enough quality to warrant funding. Current SARE resources, however, have limited 1988 through 1992 funding to a total of 309 projects managed through four SARE Regional Administrative Councils, and 31 national initiatives. Because of the long-term nature of many aspects of sustainable agriculture, significant additional resources are required to complete existing projects, interest farmers, researchers and educators in developing and submitting new proposals, and fulfilling the sustainable agriculture mandates of the Food, Agriculture, Conservation, and Trade Act of 1990.

Nature of Change. This funding for SARE will provide essential resources for continuation of support for multi-year farming systems projects that are being conducted on commercial farms and ranches by farmers and ranchers working in meaningful partnerships with public sector researchers, and representatives of non-profit private organizations, agribusiness, and government. This is imperative for the development of alternative agriculture systems for the future.

(g) A decrease of $1,818,000 for Supplemental and Alternative Crops ($1,818,000 available in 1994) consisting of:

| | |
|---|---|
| -500,000 | Crambe/Winter Rapeseed |
| -668,000 | Guayule Research |
| -500,000 | Canola Research |
| -150,000 | Hesperaloe Research |
| -1,818,000 | TOTAL |

Need for Change. Prior funding has supported the initial development of these projects. In fiscal year 1995 funds will be directed to Advanced Materials research.

Nature of Change. This change will eliminate specific funding support for earmarked research. Due to the discretionary nature of the Hatch Act and related formula based programs, amounts allotted to State institutions permit the institutions to fund research in those areas that they identify as high priority. This flexibility could provide for maintaining some of the programs if the State institutions wish to continue the research. These projects could also be submitted for competition and possible funding under the National Research Initiative.

(h) An increase of $1,818,000 for Advanced Materials under Supplemental and Alternative Crops (no funding available in 1994).

Need for Change. Typically USDA supports intramural and extramural research programs for products and manufacturing processes that use renewable plant and animal materials. Research programs are competitive and mission-oriented and are generally focused on the phase of discovery or invention. A discovery or invention must progress through several additional steps (such as applied research, technology scale-up, demonstration projects) before commercialization by the private sector. In USDA, commercialization assistance is the principal responsibility of the Alternative Agriculture Research and Commercialization (AARC) Center, an entity which brokers end product and market arrangements directly with the private sector. Support for the discovery phase and for commercialization assistance leaves a gap in funding for the necessary intermediate steps. The role CSRS serves is to fill this gap through technology development, accelerating technically sound discoveries by economic/business and institutional analyses, and commercial scale demonstration projects in partnership with business, academia and government. It is a role which capitalizes on research discoveries and, when warranted, progressively removes barriers to commercialization, ultimately taking the industrial product or process to the point of private investment, either alone or in companion to an organization like the AARC Center.

Nature of Change. The AMT for CSRS in 1995 calls for an intense program for uses of vegetable oils that provide materials of strategic and industrial importance. Development of functional fluids from erucic acid oils and derivatives will occur in 1995 with validation and scale-up of technologies, especially for nylon 1313 from brassylic acid. The 1995 program significantly expands available characterization work for hydroxy fatty acid oils and derivatives to develop specific product applications for comparative testing and market assessment. Other vegetable oils and other materials may be added. This comprehensive development program will involve private companies, government and universities in a multi-year partnership that joins resources, facilities and ideas. A successful process will require a management team to establish and evolve a program which progressively removes barriers to commercialization and adjusts work goals and objectives as progress is made.

(2) An increase of $17,850,000 for the National Research Initiative (NRI) Competitive Grants Program ($112,150,000 available in 1994).

Need for Change. Agriculture in the 1990's must provide stewardship of the environment, encourage more rational use of natural resources, improve the quality and nutrient content of food, provide new demand opportunities for agricultural commodities and forest products, and reduce farm program costs in order to continue to benefit producers as well as consumers. This Initiative responds to the major issues facing agriculture such as sustainable agroecosystems, food safety, processing new uses of agricultural products as well as biofuels development, water quality, global climate change, integrated pest management, biological controls, rural development, scientific human capital development, farm income and

market competitiveness. It allows U.S. agriculture to broaden its science and technology base to meet more effectively these demanding needs and exploit new opportunities. These imperatives coincide with recent advances in biology and with other new tools of science that present unique research opportunities for improving agriculture.

Federal funding for the Initiative is necessary because: (1) the problems are national in scope; the nation as a whole is the beneficiary of this effort, not just individual states or industries, (2) the Initiative undertakes research that increases knowledge that will be broadly applicable and that may lead to specific patentable or marketable products, (3) the need is urgent; the issues described below require action now and cannot be delayed or initiated piecemeal, (4) the health and vigor of a major segment of U.S. industry is at stake in terms of international competitiveness and advances in biotechnology provide opportunities for rapid advances in many key areas and (5) there are major benefits that will result from protection of the environment, enhancement of public health, and meeting the needs of consumers and customers of U. S. agricultural products.

The National Research Initiative is designed to conduct fundamental and mission-linked research on agricultural problems. The knowledge developed in concert with base programs will then be made available to American user groups including applied and developmental research laboratories. The intramural programs, nationally focused State Agricultural Experiment Station programs, and the network of public and private universities and organizations are also important in maintaining national thrusts in agricultural research. Extension specialists and researchers supported by the Small Business Innovation Research program have vital roles in this program as participants in research proposals focusing on adaptive research and on the transfer of technology.

A major infusion of new funding is needed to allow the strengths of current research funding mechanisms to do best what each is designed to accomplish. Each mechanism supports the others through a balanced investment in the entire spectrum of agricultural research needs.

This Initiative provides continued support for scientists at land-grant institutions as well as strengthens the USDA intramural program, since USDA scientists are eligible to compete for the grants. It also strengthens the extramural program by extending support to other outstanding scientists outside the realm of traditional agricultural institutions to address national agricultural and natural resource problems.

Nature of Change. Approximately 70 percent of the effort proposed in the NRI supports fundamental research emphasizing the most urgent agricultural, food, and natural resource problems. It is from this research that major conceptual breakthroughs are expected to emerge. These breakthroughs are critical to the eventual solution of complex problems faced by farmers, foresters, ranchers, processors, and consumers. Mission-linked research, also supported by the NRI, is expected to bridge the gap between fundamental and applied research and technology development. Much of the fundamental and mission-linked research will involve multidisciplinary teams.

Funds are awarded on a competitive, peer reviewed basis. This form of funding mechanism is uniquely suited to stimulating new research activity in specific, high-priority areas of agricultural science and engineering. All public and private universities, research organizations, Federal agencies, private organizations or corporations, and individuals are eligible to compete for these funds.

The objectives and 1995 funding requests for the six research components in the Initiative are as follows:

Natural Resources and the Environment ($27.0 million). Research activities are directed to increase understanding of agriculture and natural resource systems in order to enhance stewardship and encourage protection of the environment. Understanding the effects of potential global climate change on natural resources, agriculture and the environment will be a major area of endeavor. Research will also address the effects of agriculture on water quality by supporting projects that examine underlying mechanisms in order to provide the knowledge necessary to develop methods for water quality protection and enhancement. In addition, research will provide the knowledge base from which integration of mechanistic responses of ecosystems to management planning can be achieved. Knowledge garnered will contribute to generation of biomass for biofuels, as one example. Sustaining agriculture as an environmentally and economically sound enterprise requires improved understanding of the natural resource base upon which agriculture and forestry depend.

Nutrition, Food Safety and Health ($11.0 million). Human nutrition research is needed to investigate the relationships of human health to diet and nutrition and to food quality and safety. Research is needed on the close relationship between human nutrition and genetics, including specific nutrient and gene interactions, in order to increase our knowledge of the role of nutrition in health maintenance. Further, a better understanding of factors impacting consumer behavior is required, particularly in the areas of obstacles to acceptance of healthful food habits, contemporary eating behaviors and methods to monitor knowledge and attitudes about food and health. There is also a necessity for rapid and reliable methods to detect and quantify pathogenic organisms and naturally occurring toxins in foods in order to determine the potential hazards and approaches needed to ensure food safety.

Plants ($47.0 million). An increased effort is needed to explain the basic biological processes of crop and forest species, to search for new production systems that are sustainable and to find alternatives for present practices which degrade the environment or are not profitable. An increased effort in fundamental research is also needed to expand the knowledge base for the development and application of biotechnology in agriculture, both as a new industry and for safe, economical use in the food production, processing, and distribution system. The present "reservoir of scientific knowledge" supporting the plant sciences is inadequate for future needs. This knowledge base must be replenished to allow for more environmentally harmonious, economically viable forest and crop production systems. A fundamental understanding of the biology of crop and forest species is prerequisite to sustaining natural and managed systems, devising practices that ensure the compatibility of agricultural practices with the environment, developing sound pest control strategies and moving forward in biotechnology based on scientific principles. A new emphasis on agricultural production systems will foster research on the integration of biological principles with economic and social goals. The plant genome mapping program will continue to be an integral part of the plant systems research category in cooperation with the Agricultural Research Service as the lead agency.

Animals ($29.5 million). Animal agriculture includes livestock, poultry and the rapidly emerging industries involving aquaculture and non-traditional animals. Research across a wide range of animal sciences is urgently needed for the future sustainability of animal production efficiency as well as to investigate such areas as the modification of animal products. Proposed research will apply advanced research tools including genome mapping and genetic engineering to understand the

mechanisms that control fat and protein deposition, animal disease and reproduction. The knowledge obtained will be applicable for resolution of production and consumer questions. A better definition of the objective indicators of well-being in food-producing animals is needed. A new emphasis on entire agricultural production systems will foster research on the integration of biological principles with economic and social goals.

Processing for Adding Value or Developing New Products ($9.0 million). This initiative will focus additional resources upon research planned to design or originate new or improved, value-added food, non-food, non-feed products from agricultural and forestry materials. Through the application of the biological and physical sciences, food, non-food and industrial uses will be sought that are safe, energy-efficient, environmentally-sound and economical. Additional basic studies should increase the understanding of the physical, chemical and biological properties of the agricultural materials that may be improved through innovative processing and/or in enhancing and controlling the quality of food and non-food, non-feed products. Presently, only a third of the U.S. agricultural exports are high value-added products. New technology and processes such as bioprocessing present major opportunities for producing goods that will increase the U.S. trade advantage. Energy biomass research on alcohol and biodiesel fuels made from agricultural and forestry feedstocks will be supported. This research represents a priority for U.S. agriculture and should benefit farmers, related industries and consumers.

Markets, Trade, and Rural Development ($6.5 million). Research is needed to describe and measure the forces that reduce economic vitality and guide the policies that can restore vitality of rural areas. New critical thinking also is needed to provide new theories, concepts, and methodologies for developing rural revitalization policies. U.S. agricultural markets and international trade must be expanded in ways to enhance economic growth and relieve the Federal Government from fiscally burdensome commodity programs. This must be done through a well-coordinated program based on sound scientific principles that will bolster U.S. marketing and trade. Research on the market opportunities and trade implications of new uses for agricultural commodities will also be supported. Research on how to assess new and emerging agricultural technologies will provide valuable insight as new technologies become available.

As shown below, the six NRI categories will have significant impact on programs in the Department's initiatives on water quality, global change, biofuels, food safety, biotechnology, human nutrition, new uses and products, forestry, and pest control by integrated management programs. Emphasis will continue to be placed, where appropriate, on long- and short-term research to insure a sustainable agricultural system.

Funding from NRI for Selected Areas
(Dollars in Thousands)

| Crosscut Area | 1992 | 1993 | 1994 | 1995 Request |
|---|---|---|---|---|
| Water Quality | 4,629 | 4,370 | 8,370 | 9,870 |
| Global Change | 9,400 | 9,218 | 10,450 | 10,450 |
| Food Safety | 3,440 | 3,973 | 4,352 | 5,500 |
| Human Nutrition | 3,826 | 3,705 | 4,826 | 5,500 |
| Plant Genome | 12,309 | 12,196 | 13,000 | 13,300 |

| Crosscut Area | 1992 | 1993 | 1994 | 1995 Request |
|---|---|---|---|---|
| Biofuels | 500 | 809 | 800 | 900 |
| Biotechnology | 38,152 | 36,516 | 37,347 | 41,916 |
| New and Improved Uses | 6,053 | 4,788 | 6,788 | 7,538 |
| Forestry | 9,508 | 6,340 | 9,508 | 10,000 |
| Integrated Pest Management | 3,827 | 4,148 | 5,648 | 6,000 |
| Biological Control | 3,250 | 4,809 | 7,209 | 7,500 |
| Advanced Manufacturing | 939 | 2,637 | 3,357 | 3,607 |
| Advanced Materials | 1,690 | 970 | 1,690 | 1,690 |
| Wetlands | 1,299 | 557 | 1,299 | 1,299 |
| Sustainable Agriculture* | 10,640 | 10,142 | 13,000 | 14,000 |

*The funds designated as sustainable agriculture were categorized as either site-specific or identifiable as impacting directly on the objectives of sustainable agriculture. A high percentage of NRI funds supports research that will contribute to a sustainable agricultural system on a long-term basis.

The NRI is strongly supported by the Administration as well as numerous producer and trade associations and advisory groups. It has also attracted the strong support of the scientific community throughout the United States. The NRI is of major importance to the future of American agriculture and has been a successful mechanism to increase the investment in agriculture research in recent years as well as enhancing the general quality of the research. Congress has fully endorsed the NRI in the 1990 Farm Bill and with funding increases without earmarking.

(3) A net decrease of $10,764,000 for Federal Administration (direct appropriation) ($22,655,000 available in 1994) consisting of:

(a) A decrease of $9,103,000 for the following projects ($9,103,000 available in 1994):

| | |
|---|---|
| -3,500,000 | Gulf Coast shrimp aquaculture |
| -668,000 | Curriculum development and strengthening, Mississippi Valley State University |
| -750,000 | Center for Agricultural and Rural Development, Iowa |
| -1,075,000 | Geographic information system pilot program |
| -500,000 | Vocational aquaculture education curriculum |
| -613,000 | Herd management program, Tennessee State University |
| -250,000 | Alternative Fuels Characterization Lab, University of North Dakota |
| -100,000 | Center for North American Studies |
| -1,000,000 | PM-10 Study |
| -647,000 | Agricultural development in the American Pacific |
| -9,103,000 | TOTAL |

Prior funding has supported the initial development of these projects. Emphasis is placed on high priority national interest programs in the 1995 CSRS budget.

(b) A decrease of $1,250,000 for water quality research in Illinois and North Dakota. Prior funding has supported the initial development of these projects. Funding is requested for water quality under the Special Research Grants program as part of the Federal government's water quality initiative. Water quality research is also conducted through the National Research Initiative Competitive Grants program and States may compete for these funds.

(c) A decrease of $208,000 for the Agriculture in the Classroom program ($208,000 available in 1994). Management of this program has now been assigned to the Extension Service which is including this program in their 1995 budget request.

(d) An increase of $240,000 for peer panel costs ($260,000 available through direct Federal administration in 1994). Cooperative State Research Service uses the peer panel review process to evaluate proposals submitted under the National Research Initiative, Special Research Grants program, Higher Education programs, Rangeland Research program, and the Small Business Innovation Research program. This request provides for the cost of travel and honoraria for the peer panel members. Additional peer panel costs are met through set-asides from program funds. Growth in the CSRS grants programs results in the need for more peer panels, and these additional funds are needed for the increased costs associated with travel and honoraria for the peer panelists.

(e) An increase of $125,000 which reflects the fiscal year 1995 pay raise.

(f) A decrease of $226,000 for the Office of Grants and Program Systems. ($334,000 available in 1994).

Need for Change. In support of the President's Executive Order to promote the efficient use of resources for administrative purposes, USDA is committed to reducing administrative costs.

Nature of Change. In order to achieve this savings, CSRS will carefully monitor supply and equipment purchases, printing and reproduction costs and travel costs.

(g) A decrease of $294,000 for a reduction in Federal employment costs.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, CSRS is not filling five personnel positions.

Nature of Change. To achieve the reduction, CSRS will streamline its operations. The total reduction in personnel costs amounts to $294,000.

(h) A decrease of $48,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $48,000.

Nature of Change. In order to achieve these savings, CSRS will reduce discretionary expenses by $48,000 in FY 1995, in areas such as supply and equipment purchases, printing and reproduction costs and travel costs.

## SMALL BUSINESS INNOVATION RESEARCH PROGRAM

The Small Business Innovation Development Act (SBIR), Public Law 97-219, July 22, 1982, as amended by Public Law 99-443, October 6, 1986, was designed to strengthen the role of small, innovative firms in Federally funded research and development. Under this program small firms receive at least a fixed minimum percentage of research and development awards made by Federal agencies with sizable research and development budgets. From FY 1986 through FY 1992, 1.25 percent of an agency's extramural research budget was set aside for purposes of the SBIR Act. The Small Business Research and Development Enhancement Act of 1992 (Public Law 102-564, October 28, 1992) has amended the set-aside percent for the SBIR program as follows: 1.5 percent in fiscal years 1993 and 1994, 2.0 percent in fiscal years 1995 and 1996, and 2.5 percent in each fiscal year thereafter.

| Agency | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|
| Agricultural Research Service | $486,595 | $426,000 | $578,000 |
| Alternative Agricultural Research and Commercialization | 92,438 | 114,750 | 153,000 |
| Cooperative State Research Service | 6,045,841 | 6,370,263 | 7,846,739 |
| Economic Research Service | 15,000 | 16,500 | 22,000 |
| Forest Service | 444,000 | 404,670 | 539,560 |
| Human Nutrition Information Service | 6,630 | 3,041 | 10,000 |
| National Agricultural Statistics Service | 2,400 | 2,250 | 3,000 |
| Office of International Cooperation and Development | 2,393 | 1,781 | 2,374 |
| Total | 7,095,297 | 7,339,255 | 9,154,673 |

The functions of the SBIR program (solicitation, review and evaluation of proposals) have been centralized in order to most effectively and efficiently serve the SBIR community. Eight research topic areas have been established:

1. Forests and Related Resources. Research proposals are solicited to develop environmentally sound techniques to increase productivity of forest land and to increase the utilization of materials and resources from forest lands.

2. Plant Production and Protection. Research proposals are solicited to examine means of enhancing crop production by reducing the impact of destructive agents, developing effective crop systems that are economically and environmentally sound, enhancing the impact of new methods of plant manipulation, and developing new crop plants and new uses for existing crops.

3. Animal Production and Protection. Research proposals are solicited to find ways to enable producers of food animals to increase production efficiency and to assure a reliable and safe supply of animal protein and other animal products while conserving resources and reducing production costs.

4. Air, Water and Soils. Research proposals are solicited to develop technologies for conserving air, water and soil resources while sustaining agricultural productivity.

5. Food Science and Nutrition. Research proposals are solicited to develop new knowledge and a better understanding of the characteristics of foods and their nutritional impact; to apply new knowledge to improve our foods and diets; and to apply new knowledge to the

production of useful new food products, processes, materials, and systems including application of nutritional information to consumer foods and food service systems.

6. Rural and Community Development. Research proposals are solicited to promote, foster, or improve the well-being of rural Americans.

7. Aquaculture. Research proposals are solicited to enhance the knowledge and technology base necessary for the continued growth of the domestic aquaculture industry as a form of production agriculture. Emphasis is placed on research leading to improved production efficiency and increased competitiveness of private sector aquaculture in the United States.

8. Industrial Applications. Research proposals are solicited to develop new or improved technologies that will lead to increased production of industrial products from agricultural materials.

TABLE 1
DISTRIBUTION OF FEDERAL PAYMENTS FOR RESEARCH AND EDUCATION AT STATE AGRICULTURAL EXPERIMENT STATIONS AND OTHER STATE INSTITUTIONS - FISCAL YEAR 1993

| STATE | HATCH ACT AS AMENDED | | | COOPERATIVE FORESTRY RESEARCH (MS) | 1890 COLLEGES & TUSKEGEE UNIV. (EA) | ANIMAL HEALTH & DISEASE RESEARCH | SPECIAL RESEARCH GRANTS | NRI COMPETITIVE GRANTS | HIGHER EDUCATION GRANTS | FEDERAL ADMIN. DIRECT APPROP. | FACILITIES | BIOTECH. RISK ASSESS. | TOTAL FEDERAL FUNDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | REGULAR FORMULA | REGIONAL FORMULA | TOTAL | | | | | | | | | | |
| ALABAMA | 2,826,499 | 787,901 | 3,614,400 | 585,928 | 3,033,500 | 116,054 | 839,282 | 781,022 | 50,000 | 1,969,342 | 0 | $61,500 | 11,051,028 |
| ALASKA | 768,262 | 134,170 | 902,432 | 356,819 | 0 | 6,778 | 5,000 | 149,895 | 50,000 | 0 | 0 | 0 | 1,470,924 |
| AMERICAN SAMOA | 638,711 | 20,368 | 659,079 | 0 | 0 | 0 | 0 | 0 | 50,000 | 0 | 0 | 0 | 709,079 |
| ARIZONA | 1,062,693 | 709,427 | 1,772,120 | 253,720 | 0 | 48,900 | 304,180 | 1,608,820 | 50,000 | 0 | 1,067,000 | 0 | 5,104,740 |
| ARKANSAS | 2,438,967 | 690,520 | 3,129,487 | 482,829 | 1,338,947 | 83,394 | 2,965,587 | 1,012,676 | 50,000 | 343,480 | 3,093,330 | 100,000 | 12,599,730 |
| CALIFORNIA | 3,216,590 | 1,462,270 | 4,678,860 | 551,561 | 0 | 455,244 | 3,834,022 | 9,597,025 | 544,587 | 0 | 2,498,720 | 61,500 | 22,221,519 |
| COLORADO | 1,440,562 | 1,019,796 | 2,460,358 | 265,175 | 0 | 304,402 | 2,308,725 | 1,495,065 | 222,568 | 0 | 0 | 72,000 | 7,128,293 |
| CONNECTICUT | 1,204,394 | 464,747 | 1,669,141 | 207,897 | 0 | 17,969 | 512,672 | 1,514,862 | 98,278 | 0 | 0 | 0 | 4,020,819 |
| DELAWARE | 832,742 | 347,650 | 1,180,392 | 93,343 | 518,262 | 21,057 | 5,000 | 650,490 | 50,000 | 559,669 | 0 | 0 | 3,078,213 |
| DIST. OF COLUMBIA | 418,220 | 100,368 | 518,588 | 0 | 0 | 0 | 5,000 | 323,920 | 50,000 | 0 | 0 | 0 | 897,508 |
| FLORIDA | 2,038,948 | 626,337 | 2,665,285 | 494,284 | 1,100,611 | 132,170 | 2,289,531 | 2,866,834 | 334,000 | 975,112 | 0 | 0 | 10,857,827 |
| GEORGIA | 3,180,392 | 1,090,102 | 4,270,494 | 608,839 | 1,701,544 | 141,631 | 3,029,558 | 2,980,107 | 50,000 | 297,500 | 1,807,110 | 0 | 14,886,783 |
| GUAM | 664,669 | 114,885 | 779,554 | 36,066 | 0 | 0 | 284,100 | 0 | 50,000 | 0 | 0 | 0 | 1,149,720 |
| HAWAII | 823,159 | 359,745 | 1,182,904 | 127,710 | 0 | 7,466 | 2,934,647 | 439,378 | 50,000 | 2,505,381 | 3,211,670 | 0 | 10,459,156 |
| IDAHO | 1,355,631 | 559,325 | 1,914,956 | 402,641 | 0 | 48,693 | 1,289,729 | 971,559 | 50,000 | 0 | 485,000 | 123,000 | 5,285,578 |
| ILLINOIS | 4,054,434 | 947,611 | 5,002,045 | 310,996 | 0 | 149,716 | 772,208 | 3,503,302 | 283,950 | 716,587 | 501,490 | 61,500 | 11,301,794 |
| INDIANA | 3,713,408 | 813,646 | 4,527,054 | 322,452 | 0 | 84,060 | 3,293,750 | 2,095,051 | 180,000 | 0 | 2,090,350 | 122,960 | 12,715,677 |
| IOWA | 3,891,831 | 1,486,517 | 5,378,348 | 196,442 | 0 | 248,837 | 5,680,222 | 2,068,755 | 342,000 | 716,587 | 0 | 61,500 | 14,692,691 |
| KANSAS | 2,363,368 | 734,254 | 3,097,622 | 162,076 | 0 | 191,687 | 1,286,447 | 1,191,560 | 50,000 | 0 | 1,312,410 | 0 | 7,291,802 |
| KENTUCKY | 3,734,287 | 789,007 | 4,523,294 | 368,274 | 1,961,127 | 79,247 | 316,860 | 1,039,558 | 114,475 | 878,559 | 0 | 0 | 9,281,394 |
| LOUISIANA | 2,251,559 | 651,788 | 2,903,347 | 528,650 | 1,218,314 | 100,916 | 1,327,928 | 1,218,634 | 94,279 | 373,600 | 0 | 0 | 7,765,668 |
| MAINE | 1,181,100 | 486,433 | 1,667,533 | 540,106 | 0 | 20,783 | 1,393,230 | 388,940 | 50,000 | 0 | 752,720 | 0 | 4,813,312 |
| MARYLAND | 1,630,116 | 609,477 | 2,239,593 | 242,264 | 896,407 | 37,758 | 811,123 | 2,182,726 | 50,000 | 677,564 | 836,140 | 0 | 7,973,575 |
| MASSACHUSETTS | 1,423,534 | 594,931 | 2,018,465 | 230,809 | 0 | 29,039 | 1,454,983 | 2,052,746 | 158,000 | 0 | 0 | 0 | 5,944,042 |
| MICHIGAN | 3,727,169 | 840,933 | 4,568,102 | 505,740 | 0 | 74,654 | 6,417,431 | 2,549,715 | 337,472 | 0 | 14,559,700 | 0 | 29,012,814 |
| MICRONESIA | 310,025 | 0 | 310,025 | 0 | 0 | 0 | 0 | 0 | 50,000 | 0 | 0 | 0 | 360,025 |
| MINNESOTA | 3,649,272 | 838,051 | 4,487,323 | 437,007 | 0 | 174,925 | 1,636,120 | 2,184,387 | 439,803 | 0 | 0 | 0 | 9,359,565 |
| MISSISSIPPI | 2,910,409 | 796,752 | 3,707,161 | 574,472 | 1,554,136 | 71,031 | 3,963,230 | 700,746 | 50,000 | 2,040,946 | 180,420 | 0 | 12,842,142 |
| MISSOURI | 3,529,813 | 748,671 | 4,278,484 | 345,363 | 1,869,177 | 162,429 | 1,668,606 | 1,790,967 | 50,000 | 136,651 | 0 | 0 | 10,301,677 |
| MONTANA | 1,278,727 | 626,409 | 1,905,136 | 391,185 | 0 | 71,143 | 423,342 | 727,509 | 50,000 | 0 | 887,550 | 0 | 4,455,865 |
| NEBRASKA | 2,189,919 | 849,583 | 3,039,502 | 139,165 | 0 | 203,572 | 2,684,542 | 1,337,408 | 266,000 | 0 | 0 | 0 | 7,670,189 |
| NEVADA | 761,418 | 342,975 | 1,104,393 | 58,977 | 0 | 23,720 | 193,833 | 220,052 | 50,000 | 0 | 208,550 | 0 | 1,859,525 |
| NEW HAMPSHIRE | 958,289 | 348,377 | 1,306,666 | 288,086 | 0 | 8,588 | 131,000 | 557,459 | 50,000 | 0 | 0 | 0 | 2,341,799 |
| NEW JERSEY | 1,399,913 | 1,186,418 | 2,586,331 | 173,532 | 0 | 18,811 | 912,652 | 704,816 | 158,000 | 0 | 2,544,310 | 0 | 7,098,452 |
| NEW MEXICO | 1,094,847 | 377,357 | 1,472,204 | 219,353 | 0 | 39,460 | 1,231,654 | 404,013 | 180,000 | 0 | 0 | 0 | 3,546,684 |
| NEW YORK | 3,559,655 | 1,459,085 | 5,018,740 | 597,383 | 0 | 235,351 | 2,884,140 | 6,692,128 | 365,527 | 0 | 3,586,090 | 0 | 19,379,359 |
| NORTH CAROLINA | 4,800,867 | 1,129,841 | 5,930,708 | 563,017 | 2,449,694 | 101,221 | 518,704 | 3,101,278 | 348,520 | 1,008,678 | 3,573,480 | 0 | 17,595,300 |
| NORTH DAKOTA | 1,616,077 | 564,147 | 2,180,224 | 70,433 | 0 | 52,148 | 2,916,137 | 1,351,011 | 50,000 | 1,097,807 | 4,339,780 | 0 | 12,057,540 |
| NORTHERN MARIANAS | 512,959 | 0 | 512,959 | 0 | 0 | 0 | 0 | 0 | 50,000 | 0 | 0 | 0 | 562,959 |

TABLE 1
DISTRIBUTION OF FEDERAL PAYMENTS FOR RESEARCH AND EDUCATION AT STATE AGRICULTURAL EXPERIMENT STATIONS AND OTHER STATE INSTITUTIONS - FISCAL YEAR 1993

| STATE | HATCH ACT AS AMENDED | | | COOPERATIVE FORESTRY RESEARCH (MS) | 1890 COLLEGES & TUSKEGEE UNIV. (EA) | ANIMAL HEALTH & DISEASE RESEARCH | SPECIAL RESEARCH GRANTS | NRI COMPETITIVE GRANTS | HIGHER EDUCATION GRANTS | FEDERAL ADMIN. DIRECT APPROP. | FACILITIES | BIOTECH. RISK ASSESS. | TOTAL FEDERAL FUNDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | REGULAR FORMULA | REGIONAL FORMULA | TOTAL | | | | | | | | | | |
| OHIO | 4,424,216 | 908,209 | 5,332,425 | 333,908 | 0 | 110,926 | 1,893,234 | 2,094,825 | 50,000 | 0 | 496,640 | 0 | 10,311,958 |
| OKLAHOMA | 2,250,974 | 566,581 | 2,817,555 | 299,542 | 1,244,590 | 142,627 | 992,676 | 833,159 | 158,000 | 834,282 | 0 | 0 | 7,322,431 |
| OREGON | 1,692,812 | 887,205 | 2,580,017 | 631,749 | 0 | 96,015 | 3,239,997 | 1,439,341 | 396,000 | 0 | 1,769,280 | 0 | 10,152,399 |
| PENNSYLVANIA | 4,382,572 | 1,186,332 | 5,568,904 | 448,462 | 0 | 140,136 | 2,004,312 | 4,543,712 | 158,000 | 0 | 0 | 0 | 12,863,526 |
| PUERTO RICO | 3,087,436 | 701,585 | 3,789,021 | 81,888 | 0 | 12,870 | 305,188 | 0 | 50,000 | 0 | 0 | 0 | 4,238,967 |
| RHODE ISLAND | 763,157 | 360,739 | 1,123,896 | 116,254 | 0 | 6,275 | 302,308 | 484,318 | 50,000 | 0 | 0 | 0 | 2,083,051 |
| SOUTH CAROLINA | 2,455,911 | 650,682 | 3,106,593 | 459,918 | 1,318,077 | 26,051 | 570,265 | 851,301 | 50,000 | 296,301 | 0 | 61,500 | 6,740,006 |
| SOUTH DAKOTA | 1,663,667 | 568,952 | 2,232,619 | 104,799 | 0 | 99,581 | 73,364 | 529,453 | 50,000 | 0 | 848,750 | 0 | 3,938,566 |
| TENNESSEE | 3,563,799 | 806,712 | 4,370,511 | 414,096 | 1,864,658 | 64,278 | 392,084 | 874,783 | 50,000 | 792,991 | 1,129,080 | 0 | 9,952,481 |
| TEXAS | 4,651,424 | 1,147,546 | 5,798,970 | 471,374 | 2,449,119 | 410,628 | 1,888,485 | 6,224,835 | 343,393 | 467,536 | 584,910 | 0 | 18,639,250 |
| UTAH | 961,667 | 646,534 | 1,608,201 | 150,621 | 0 | 56,858 | 310,948 | 460,000 | 117,985 | 0 | 638,260 | 0 | 3,342,873 |
| VERMONT | 1,013,031 | 305,467 | 1,318,498 | 276,631 | 0 | 13,282 | 1,732,619 | 618,070 | 50,000 | 0 | 0 | 0 | 4,009,100 |
| VIRGIN ISLANDS | 650,670 | 112,874 | 763,544 | 47,522 | 0 | 0 | 204,688 | 0 | 50,000 | 0 | 0 | 0 | 1,065,754 |
| VIRGINIA | 3,041,278 | 744,103 | 3,785,381 | 517,195 | 1,602,867 | 84,628 | 315,371 | 1,192,761 | 178,683 | 1,593,403 | 853,600 | 0 | 10,123,889 |
| WASHINGTON | 1,928,738 | 1,370,404 | 3,299,142 | 620,294 | 0 | 174,484 | 3,523,294 | 2,875,747 | 50,000 | 0 | 2,190,260 | 0 | 12,733,221 |
| WEST VIRGINIA | 1,920,701 | 507,655 | 2,428,356 | 379,730 | 0 | 11,950 | 60,996 | 910,502 | 50,000 | 0 | 0 | 0 | 3,841,534 |
| WISCONSIN | 3,658,141 | 948,927 | 4,607,068 | 425,551 | 0 | 178,784 | 988,419 | 4,847,830 | 230,480 | 0 | 2,179,590 | 0 | 13,457,722 |
| WYOMING | 904,626 | 499,789 | 1,404,415 | 184,987 | 0 | 38,629 | 79,104 | 579,429 | 50,000 | 0 | 418,070 | 0 | 2,754,634 |
| OTHER | 0 | 215,700 | 215,700 | | 38,100 | 0 | 488,751 | 0 | 0 | 0 | 0 | 0 | 742,551 |
| SBIR | 1,867,121 | 592,235 | 2,459,356 | 269,655 | 398,670 | 79,934 | 1,248,712 | 1,404,000 | 0 | 185,514 | 0 | 0 | 6,045,841 |
| SUBTOTAL | $124,335,376 | $39,438,105 | $163,773,481 | $17,966,770 | $26,557,800 | $5,310,790 | $83,139,990 | $93,218,480 | $7,700,000 | $18,467,490 | $58,644,260 | $725,460 | $475,504,521 |
| UNOBLIGATED BAL. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8,104,350 | | 8,104,350 |
| SUBTOTAL | $124,335,376 | $39,438,105 | $163,773,481 | $17,966,770 | $26,557,800 | $5,310,790 | $83,139,990 | $93,218,480 | $7,700,000 | $18,467,490 | $66,748,610 | $725,460 | $483,608,871 |
| FEDERAL ADMIN. | | | 4,827,939 | 555,990 | 822,000 | 222,040 | 3,331,480 | 3,900,000 | 150,000 | 2,323,290 | 1,877,259 | 0 | 18,009,998 |
| UNOBLIGATED BAL. | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 447,131 | | 447,131 |
| SUBTOTAL | $0 | $0 | $4,827,939 | $555,990 | $822,000 | $222,040 | $3,331,480 | $3,900,000 | $150,000 | $2,323,290 | $2,324,390 | $0 | $18,457,129 |
| BIOTECHNOLOGY RISK ASSESSMENT | 139,372 | 44,208 | 183,580 | 10,240 | 20,200 | 18,170 | 107,530 | 381,520 | 0 | 4,220 | 0 | (725,460) | 0 |
| TOTAL | $124,474,748 | $39,482,313 | $168,785,000 | $18,533,000 | $27,400,000 | $5,551,000 | $86,579,000 | $97,500,000 | $7,850,000 | $20,795,000 | $69,073,000 | $0 | $502,066,000 |

Table 2
Payments to State Agricultural Experiment Stations under the Hatch Act

| State | FY 1993 Actual | | | FY 1994 Estimate | | | FY 1995 Estimate | | |
|---|---|---|---|---|---|---|---|---|---|
| | Regular Formula | Regional Research | Total | Regular Formula | Regional Research | Total | Regular Formula | Regional Research (a) | Total |
| Alabama | $2,826,499 | $787,901 | $3,614,400 | $2,849,750 | $784,137 | $3,633,887 | $2,835,267 | $782,322 | 3,617,589 |
| Alaska | 768,262 | 134,170 | 902,432 | 775,312 | 134,979 | 910,291 | 771,371 | 134,667 | 906,038 |
| American Samoa | 638,711 | 20,368 | 659,079 | 647,744 | 20,490 | 668,234 | 644,453 | 20,443 | 664,896 |
| Arizona | 1,062,693 | 709,427 | 1,772,120 | 1,072,151 | 713,704 | 1,785,855 | 1,066,702 | 712,052 | 1,778,754 |
| Arkansas | 2,438,967 | 690,520 | 3,129,487 | 2,458,685 | 687,221 | 3,145,906 | 2,446,189 | 685,631 | 3,131,820 |
| California | 3,216,590 | 1,462,270 | 4,678,860 | 3,255,719 | 1,470,906 | 4,726,625 | 3,239,172 | 1,467,502 | 4,706,674 |
| Colorado | 1,440,562 | 1,019,796 | 2,460,358 | 1,455,485 | 1,026,616 | 2,482,101 | 1,448,088 | 1,024,240 | 2,472,328 |
| Connecticut | 1,204,394 | 464,747 | 1,669,141 | 1,215,370 | 467,641 | 1,683,011 | 1,209,193 | 466,559 | 1,675,752 |
| Delaware | 832,742 | 347,650 | 1,180,392 | 840,329 | 349,814 | 1,190,143 | 836,059 | 349,005 | 1,185,064 |
| Dist. of Col. | 418,220 | 100,368 | 518,588 | 527,665 | 100,994 | 628,659 | 524,984 | 100,760 | 625,744 |
| Florida | 2,038,948 | 626,337 | 2,665,285 | 2,063,880 | 638,345 | 2,702,225 | 2,053,392 | 636,868 | 2,690,260 |
| Georgia | 3,180,392 | 1,090,102 | 4,270,494 | 3,211,231 | 1,077,398 | 4,288,629 | 3,194,912 | 1,074,905 | 4,269,817 |
| Guam | 664,669 | 114,885 | 779,554 | 671,132 | 115,577 | 786,709 | 667,721 | 115,310 | 783,031 |
| Hawaii | 823,159 | 359,745 | 1,182,904 | 830,525 | 361,914 | 1,192,439 | 826,304 | 361,077 | 1,187,381 |
| Idaho | 1,355,631 | 559,325 | 1,914,956 | 1,369,108 | 562,697 | 1,931,805 | 1,362,151 | 561,395 | 1,923,546 |
| Illinois | 4,054,434 | 947,611 | 5,002,045 | 4,094,873 | 953,072 | 5,047,945 | 4,074,062 | 950,867 | 5,024,929 |
| Indiana | 3,713,408 | 813,646 | 4,527,054 | 3,753,397 | 803,249 | 4,556,646 | 3,734,322 | 801,390 | 4,535,712 |
| Iowa | 3,891,831 | 1,486,517 | 5,378,348 | 3,933,014 | 1,584,054 | 5,517,068 | 3,913,027 | 1,580,388 | 5,493,415 |
| Kansas | 2,363,368 | 734,254 | 3,097,622 | 2,385,784 | 738,486 | 3,124,270 | 2,373,660 | 736,777 | 3,110,437 |
| Kentucky | 3,734,287 | 789,007 | 4,523,294 | 3,771,947 | 785,238 | 4,557,185 | 3,752,779 | 783,421 | 4,536,200 |
| Louisiana | 2,251,559 | 651,788 | 2,903,347 | 2,270,955 | 648,674 | 2,919,629 | 2,259,413 | 647,173 | 2,906,586 |
| Maine | 1,181,100 | 486,433 | 1,667,533 | 1,192,749 | 487,400 | 1,680,149 | 1,186,688 | 486,272 | 1,672,960 |
| Maryland | 1,630,116 | 609,477 | 2,239,593 | 1,645,657 | 613,273 | 2,258,930 | 1,637,293 | 611,854 | 2,249,147 |
| Massachusetts | 1,423,534 | 594,931 | 2,018,465 | 1,436,896 | 598,636 | 2,035,532 | 1,429,594 | 597,251 | 2,026,845 |
| Michigan | 3,727,169 | 840,933 | 4,568,102 | 3,765,080 | 915,779 | 4,680,859 | 3,745,945 | 913,660 | 4,659,605 |
| Micronesia | 310,025 | 0 | 310,025 | 682,925 | 0 | 682,925 | 679,454 | 0 | 679,454 |
| Minnesota | 3,649,272 | 838,051 | 4,487,323 | 3,686,759 | 842,880 | 4,529,639 | 3,668,022 | 840,930 | 4,508,952 |
| Mississippi | 2,910,409 | 796,752 | 3,707,161 | 2,931,599 | 792,946 | 3,724,545 | 2,916,700 | 791,111 | 3,707,811 |
| Missouri | 3,529,813 | 748,671 | 4,278,484 | 3,565,874 | 752,987 | 4,318,861 | 3,547,753 | 751,245 | 4,298,998 |
| Montana | 1,278,727 | 626,409 | 1,905,136 | 1,292,402 | 630,187 | 1,922,589 | 1,285,833 | 628,729 | 1,914,562 |
| Nebraska | 2,189,919 | 849,583 | 3,039,502 | 2,212,137 | 854,479 | 3,066,616 | 2,200,895 | 852,502 | 3,053,397 |
| Nevada | 761,418 | 342,975 | 1,104,393 | 768,636 | 345,042 | 1,113,678 | 764,730 | 344,244 | 1,108,974 |
| New Hampshire | 958,289 | 348,377 | 1,306,666 | 968,373 | 350,547 | 1,318,920 | 963,451 | 349,736 | 1,313,187 |
| New Jersey | 1,399,913 | 1,186,418 | 2,586,331 | 1,413,376 | 1,197,999 | 2,611,375 | 1,406,193 | 1,195,227 | 2,601,420 |
| New Mexico | 1,094,847 | 377,357 | 1,472,204 | 1,105,078 | 379,632 | 1,484,710 | 1,099,462 | 378,754 | 1,478,216 |
| New York | 3,559,655 | 1,459,085 | 5,018,740 | 3,593,849 | 1,449,259 | 5,043,108 | 3,575,584 | 1,445,905 | 5,021,489 |
| North Carolina | 4,800,867 | 1,129,841 | 5,930,708 | 4,841,546 | 1,124,444 | 5,965,990 | 4,816,942 | 1,121,842 | 5,938,784 |
| North Dakota | 1,616,077 | 564,147 | 2,180,224 | 1,629,919 | 567,398 | 2,197,317 | 1,621,635 | 566,085 | 2,187,720 |
| N. Marianas | 512,959 | 0 | 512,959 | 634,696 | 0 | 634,696 | 631,470 | 0 | 631,470 |
| Ohio | 4,424,216 | 908,209 | 5,332,425 | 4,472,096 | 913,442 | 5,385,538 | 4,449,368 | 911,328 | 5,360,696 |
| Oklahoma | 2,250,974 | 566,581 | 2,817,555 | 2,272,551 | 581,774 | 2,854,325 | 2,261,002 | 580,428 | 2,841,430 |
| Oregon | 1,692,812 | 887,205 | 2,580,017 | 1,712,738 | 892,554 | 2,605,292 | 1,704,035 | 890,488 | 2,594,523 |
| Pennsylvania | 4,382,572 | 1,186,332 | 5,568,904 | 4,427,214 | 1,194,042 | 5,621,256 | 4,404,715 | 1,191,278 | 5,595,993 |
| Puerto Rico | 3,087,436 | 701,585 | 3,789,021 | 3,101,403 | 698,233 | 3,799,636 | 3,085,641 | 696,617 | 3,782,258 |
| Rhode Island | 763,157 | 360,739 | 1,123,896 | 769,922 | 362,986 | 1,132,908 | 766,009 | 362,146 | 1,128,155 |
| South Carolina | 2,455,911 | 650,682 | 3,106,593 | 2,478,509 | 647,574 | 3,126,083 | 2,465,914 | 646,075 | 3,111,989 |
| South Dakota | 1,663,667 | 568,952 | 2,232,619 | 1,680,149 | 572,232 | 2,252,381 | 1,671,609 | 570,909 | 2,242,518 |
| Tennessee | 3,563,799 | 806,712 | 4,370,511 | 3,594,569 | 802,859 | 4,397,428 | 3,576,301 | 801,001 | 4,377,302 |
| Texas | 4,651,424 | 1,147,546 | 5,798,970 | 4,702,081 | 1,325,064 | 6,027,145 | 4,678,185 | 1,321,997 | 6,000,182 |
| Utah | 961,667 | 646,534 | 1,608,201 | 970,117 | 710,432 | 1,680,549 | 965,187 | 708,789 | 1,673,976 |
| Vermont | 1,013,031 | 305,467 | 1,318,498 | 1,022,603 | 307,370 | 1,329,973 | 1,017,407 | 306,659 | 1,324,066 |
| Virgin Islands | 650,670 | 112,874 | 763,544 | 656,798 | 112,335 | 769,133 | 653,460 | 112,076 | 765,536 |
| Virginia | 3,041,278 | 744,103 | 3,785,381 | 3,069,125 | 734,576 | 3,803,701 | 3,053,527 | 732,876 | 3,786,403 |
| Washington | 1,928,738 | 1,370,404 | 3,299,142 | 1,949,262 | 1,382,306 | 3,331,568 | 1,939,354 | 1,379,108 | 3,318,462 |
| West Virginia | 1,920,701 | 507,655 | 2,428,356 | 1,937,110 | 510,817 | 2,447,927 | 1,927,265 | 509,636 | 2,436,901 |
| Wisconsin | 3,658,141 | 948,927 | 4,607,068 | 3,697,276 | 955,781 | 4,653,057 | 3,678,485 | 953,568 | 4,632,053 |
| Wyoming | 904,626 | 499,789 | 1,404,415 | 913,291 | 502,802 | 1,416,093 | 908,649 | 501,635 | 1,410,284 |
| Other | 0 | 215,700 | 215,700 | 0 | 218,900 | 218,900 | 0 | 218,900 | 218,900 |
| SUBTOTAL | 122,468,255 | 38,845,870 | 161,314,125 | 124,248,421 | 39,354,173 | 163,602,594 | 123,616,978 | 39,263,613 | 162,880,591 |
| Federal Admin. | 0 | 0 | 4,827,939 | 0 | 0 | 4,903,509 | 0 | 0 | 4,903,509 |
| Unoblig. Bal. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SBIR set-aside. | 1,867,121 | 592,235 | 2,459,356 | 1,894,326 | 601,681 | 2,496,007 | 2,525,769 | 802,241 | 3,328,010 |
| Biotech. Risk Assessment | 139,372 | 44,208 | 183,580 | 145,681 | 46,209 | 191,890 | 145,681 | 46,209 | 191,890 |
| Contingency | 0 | 0 | 0 | 0 | 110,000 | 110,000 | 0 | 0 | 0 |
| TOTAL | 124,474,748 | 39,482,313 | 168,785,000 | 126,288,428 | 40,112,063 | 171,304,000 | 126,288,428 | 40,112,063 | 171,304,000 |

(a) Final distribution will be determined at a later date by a statutory committee authorized in the Hatch Act.

Table 3
Distribution of Funds under the McIntire-Stennis Cooperative Forestry Research Act
(In Dollars)

| State/Recipient | Fiscal Year 1993 Actual | Fiscal Year 1994 Estimate | Fiscal Year 1995 Estimate |
|---|---|---|---|
| ALABAMA | | | |
| Agricultural Experiment Station, Auburn University | $585,928 | $660,370 | $657,016 |
| ALASKA | | | |
| Agricultural Experiment Station, University of Alaska | 356,819 | 439,801 | 450,476 |
| AMERICAN SAMOA | | | |
| American Samoa Community College | 0 | 0 | 0 |
| ARIZONA | | | |
| Agricultural Experiment Station, University of Arizona | 126,860 | 142,052 | 141,331 |
| School of Forestry, Northern Arizona University | 126,860 | 142,052 | 141,331 |
| ARKANSAS | | | |
| Agricultural Experiment Station, Univ. of Arkansas | 482,829 | 582,522 | 579,564 |
| CALIFORNIA | | | |
| Agricultural Experiment Station, Univ. of California | 441,249 | 497,157 | 494,632 |
| Department of Forestry, California State Univ., Humboldt | 82,734 | 93,217 | 92,743 |
| California Polytechnic State University | 27,578 | 31,072 | 30,914 |
| COLORADO | | | |
| College of Forestry and Natural Resources, Colorado State Univ. | 265,175 | 310,054 | 308,479 |
| CONNECTICUT | | | |
| Agricultural Experiment Station, New Haven | 155,923 | 164,425 | 163,589 |
| Agricultural Experiment Station, Univ. of Connecticut, Storrs | 51,974 | 54,808 | 54,530 |
| DELAWARE | | | |
| Agricultural Experiment Station, University of Delaware | 93,343 | 89,485 | 89,030 |
| FLORIDA | | | |
| Agricultural Experiment Station, University of Florida | 494,284 | 595,497 | 592,472 |
| GEORGIA | | | |
| School of Forest Resources, University of Georgia | 608,839 | 712,269 | 708,651 |
| GUAM | | | |
| Agricultural Experiment Station, University of Guam | 36,066 | 37,586 | 37,395 |
| HAWAII | | | |
| Agricultural Experiment Station, University of Hawaii | 127,710 | 141,384 | 140,666 |
| IDAHO | | | |
| College of Forestry, University of Idaho | 402,641 | 426,826 | 424,658 |
| ILLINOIS | | | |
| Agricultural Experiment Station, University of Illinois | 155,498 | 168,002 | 167,149 |
| Department of Forestry, Southern Illinois University | 155,498 | 168,002 | 167,149 |
| INDIANA | | | |
| Agricultural Experiment Station, Purdue University | 322,452 | 348,978 | 347,206 |
| IOWA | | | |
| Agriculture & Home Economics Experiment Sta., Iowa State Univ. | 196,442 | 232,206 | 231,027 |
| KANSAS | | | |
| Agricultural Experiment Station, Kansas State University | 162,076 | 180,308 | 179,392 |
| KENTUCKY | | | |
| Agricultural Experiment Station, University of Kentucky | 368,274 | 400,877 | 398,841 |
| LOUISIANA | | | |
| Agricultural Experiment Station, Louisiana State University | 370,055 | 425,930 | 423,767 |
| School of Forestry, Louisiana Tech University | 158,595 | 182,541 | 181,614 |
| MAINE | | | |
| Agricultural Experiment Station, University of Maine | 540,106 | 569,547 | 553,746 |
| MARYLAND | | | |
| Agricultural Experiment Station, University of Maryland | 242,264 | 271,130 | 269,753 |
| MASSACHUSETTS | | | |
| Agricultural Experiment Station, University of Massachusetts | 230,809 | 258,156 | 256,844 |

| State/Recipient | Fiscal Year 1993 Actual | Fiscal Year 1994 Estimate | Fiscal Year 1995 Estimate |
|---|---|---|---|
| MICHIGAN | | | |
| Agricultural Experiment Station, Michigan State University .... | $168,580 | $176,874 | $175,976 |
| School of Natural Resources, University of Michigan ..... | 168,580 | 176,874 | 175,976 |
| Department of Forestry, Michigan Technological University ..... | 168,580 | 176,874 | 175,976 |
| MICRONESIA | | | |
| College of Micronesia ..... | 0 | 0 | 0 |
| MINNESOTA | | | |
| Agricultural Experiment Station, University of Minnesota ..... | 437,007 | 504,674 | 502,111 |
| MISSISSIPPI | | | |
| School of Forest Resources, Mississippi State University ..... | 574,472 | 647,395 | 644,107 |
| MISSOURI | | | |
| Agricultural Experiment Station, University of Missouri ..... | 345,363 | 426,826 | 437,567 |
| MONTANA | | | |
| School of Forestry, University of Montana ..... | 391,185 | 413,852 | 411,750 |
| NEBRASKA | | | |
| Agricultural Experiment Station, University of Nebraska ..... | 139,165 | 167,333 | 166,483 |
| NEVADA | | | |
| Agricultural Experiment Station, University of Nevada ..... | 58,977 | 63,536 | 63,213 |
| NEW HAMPSHIRE | | | |
| Agricultural Experiment Station, University of New Hampshire .. | 288,086 | 323,029 | 321,388 |
| NEW JERSEY | | | |
| Agricultural Experiment Station, Rutgers University ..... | 173,532 | 193,282 | 192,301 |
| NEW MEXICO | | | |
| Agricultural Experiment Station, New Mexico State University .. | 219,353 | 245,181 | 243,936 |
| NEW YORK | | | |
| Agricultural Experiment Station, Cornell University ..... | 149,346 | 168,336 | 167,481 |
| College of Environmental Science and Forestry, State University of New York ..... | 448,037 | 505,009 | 502,444 |
| NORTH CAROLINA | | | |
| School of Forest Resources, North Carolina State University ... | 563,017 | 673,345 | 682,834 |
| NORTH DAKOTA | | | |
| Agricultural Experiment Station, North Dakota State University | 70,433 | 76,510 | 76,122 |
| OHIO | | | |
| Agricultural Experiment Station, Ohio State University ..... | 333,908 | 374,928 | 373,023 |
| OKLAHOMA | | | |
| Agricultural Experiment Station, Oklahoma State University .... | 299,542 | 361,953 | 360,115 |
| OREGON | | | |
| School of Forestry, Oregon State University ..... | 631,749 | 699,294 | 695,742 |
| PENNSYLVANIA | | | |
| Agricultural Experiment Station, Pennsylvania State University | 448,462 | 491,699 | 489,202 |
| PUERTO RICO | | | |
| Agricultural Experiment Station, University of Puerto Rico .... | 81,888 | 102,460 | 101,939 |
| RHODE ISLAND | | | |
| Agricultural Experiment Station, University of Rhode Island ... | 116,254 | 115,434 | 114,848 |
| SOUTH CAROLINA | | | |
| College of Forest and Recreation Resources, Clemson University | 459,918 | 517,649 | 515,020 |
| SOUTH DAKOTA | | | |
| Agricultural Experiment Station, South Dakota State University | 104,799 | 128,409 | 127,757 |
| TENNESSEE | | | |
| Agricultural Experiment Station, University of Tennessee ..... | 414,096 | 465,750 | 463,385 |
| TEXAS | | | |
| Agricultural Experiment Station, Texas A&M University ..... | 235,687 | 271,799 | 270,419 |
| School of Forestry, Stephen F. Austin State University ..... | 235,687 | 271,799 | 270,419 |
| UTAH | | | |
| College of Natural Resources, Utah State University ..... | 150,621 | 154,358 | 153,574 |
| VERMONT | | | |
| School of Natural Resources, University of Vermont ..... | 276,631 | 297,080 | 295,571 |
| VIRGIN ISLANDS | | | |
| Agricultural Experiment Station, Univ. of the Virgin Islands .. | 47,522 | 50,561 | 50,304 |

| State/Recipient | Fiscal Year 1993 Actual | Fiscal Year 1994 Estimate | Fiscal Year 1995 Estimate |
|---|---|---|---|
| VIRGINIA | | | |
| School of Forestry and Wildlife Resources, Virginia Polytechnic Institute and State University | $517,195 | $569,547 | $566,655 |
| WASHINGTON | | | |
| Agricultural Experiment Station, Washington State University | 279,132 | 297,167 | 284,039 |
| College of Forest Resources, University of Washington | 341,162 | 363,204 | 347,159 |
| WEST VIRGINIA | | | |
| Agricultural Experiment Station, West Virginia University | 379,730 | 387,902 | 385,932 |
| WISCONSIN | | | |
| Agricultural Experiment Station, University of Wisconsin | 425,551 | 478,725 | 476,293 |
| WYOMING | | | |
| Agricultural Experiment Station, University of Wyoming | 184,987 | 206,257 | 205,209 |
| Subtotal | 17,697,115 | 19,871,159 | 19,770,235 |
| Federal administration (3%) | 555,990 | 624,270 | 624,270 |
| Small Business Act | 269,655 | 302,771 | 403,695 |
| Biotechnology Risk Assessment | 10,240 | 10,800 | 10,800 |
| Total | 18,533,000 | 20,809,000 | 20,809,000 |

Table 4

Evans-Allen Payments to 1890 Colleges and Tuskegee University
Under Section 1445, Public Law 95-113, As Amended
(In Dollars)

| State/Institution | Fiscal Year 1993 Actual | Fiscal Year 1994 Estimate | Fiscal Year 1995 Estimate |
|---|---|---|---|
| ALABAMA | | | |
| Alabama A&M University | $1,526,433 | $1,562,889 | $1,554,939 |
| Tuskegee University | 1,507,067 | 1,543,523 | 1,535,672 |
| ARKANSAS | | | |
| University of Arkansas--Pine Bluff | 1,338,947 | 1,371,270 | 1,364,295 |
| DELAWARE | | | |
| Delaware State College | 518,262 | 529,856 | 527,162 |
| FLORIDA | | | |
| Florida A&M University | 1,100,611 | 1,138,295 | 1,132,502 |
| GEORGIA | | | |
| Fort Valley State College | 1,701,544 | 1,750,003 | 1,741,098 |
| KENTUCKY | | | |
| Kentucky State University | 1,961,127 | 2,022,380 | 2,012,089 |
| LOUISIANA | | | |
| Southern University | 1,218,314 | 1,248,362 | 1,242,011 |
| MARYLAND | | | |
| University of Maryland-Eastern Shore | 896,407 | 920,371 | 915,689 |
| MISSISSIPPI | | | |
| Alcorn State University | 1,554,136 | 1,587,583 | 1,579,509 |
| MISSOURI | | | |
| Lincoln University | 1,869,177 | 1,930,086 | 1,920,264 |
| NORTH CAROLINA | | | |
| North Carolina A&T State University | 2,449,694 | 2,514,745 | 2,501,951 |
| OKLAHOMA | | | |
| Langston University | 1,244,590 | 1,280,001 | 1,273,488 |
| SOUTH CAROLINA | | | |
| South Carolina State College | 1,318,077 | 1,352,033 | 1,345,156 |
| TENNESSEE | | | |
| Tennessee State University | 1,864,658 | 1,914,798 | 1,905,057 |
| TEXAS | | | |
| Prairie View A&M College | 2,449,119 | 2,529,800 | 2,516,925 |
| VIRGINIA | | | |
| Virginia State College | 1,602,867 | 1,646,481 | 1,638,107 |
| CRIS | 38,100 | 38,600 | 38,600 |
| Subtotal | 26,159,130 | 26,881,076 | 26,744,514 |
| Federal Administration (3%) | 822,000 | 844,710 | 844,710 |
| Small Business Set-Aside | 398,670 | 409,684 | 546,246 |
| Biotechnology Risk Assessment | 20,200 | 21,530 | 21,530 |
| TOTAL | 27,400,000 | 28,157,000 | 28,157,000 |

Table 5
Distribution of Funds for Animal Health and Disease Research
Section 1433, P.L. 95-113
(In Dollars)

| State/Recipient | Fiscal Year 1993 Actual | Fiscal Year 1994 Est. | Fiscal Year 1995 Est. |
|---|---|---|---|
| ALABAMA | | | |
| Agricultural Experiment Station, Auburn University | $45,786 | $48,281 | $48,035 |
| School of Veterinary Medicine, Auburn University | 68,300 | 65,358 | 65,025 |
| School of Veterinary Medicine, Tuskegee University | 1,968 | 1,415 | 1,408 |
| ALASKA | | | |
| Agricultural Experiment Station, University of Alaska | 6,778 | 7,309 | 7,272 |
| ARIZONA | | | |
| Agricultural Experiment Station, University of Arizona | 48,900 | 50,090 | 49,835 |
| ARKANSAS | | | |
| Agricultural Experiment Station, University of Arkansas | 83,394 | 85,725 | 85,288 |
| CALIFORNIA | | | |
| Agricultural Experiment Station, Univ. of California, Oakland | 192,383 | 187,147 | 186,194 |
| School of Veterinary Medicine, University of California, Davis | 262,861 | 291,796 | 290,310 |
| COLORADO | | | |
| Agricultural Experiment Station and College of Veterinary Medicine, Colorado State University | 304,402 | 281,169 | 279,737 |
| CONNECTICUT | | | |
| Agricultural Experiment Station, Univ. of Connecticut, Storrs | 17,969 | 17,523 | 17,434 |
| DELAWARE | | | |
| Agricultural Experiment Station, University of Delaware | 21,057 | 19,919 | 19,818 |
| FLORIDA | | | |
| Agricultural Experiment Station, University of Florida | 51,269 | 92,130 | 91,661 |
| College of Veterinary Medicine, University of Florida | 80,901 | 47,163 | 46,923 |
| GEORGIA | | | |
| Agricultural Experiment Station, University of Georgia | 19,337 | 16,285 | 16,202 |
| College of Veterinary Medicine, University of Georgia | 122,294 | 122,222 | 121,599 |
| HAWAII | | | |
| Agricultural Experiment Station, University of Hawaii | 7,466 | 7,560 | 7,521 |
| IDAHO | | | |
| Agricultural Experiment Station, University of Idaho | 48,693 | 49,950 | 49,696 |
| ILLINOIS | | | |
| Agricultural Experiment Station and College of Veterinary Medicine, University of Illinois | 149,716 | 161,287 | 160,465 |
| INDIANA | | | |
| Agricultural Experiment Station and College of Veterinary Medicine, Purdue University | 84,060 | 87,092 | 86,648 |
| IOWA | | | |
| Agriculture & Home Economics Experiment Sta., Iowa State Univ. | 42,365 | 42,232 | 42,017 |
| College of Veterinary Medicine, Iowa State University | 206,472 | 204,213 | 203,173 |
| KANSAS | | | |
| Agricultural Experiment Station and College of Veterinary Medicine, Kansas State University | 191,687 | 197,776 | 196,769 |
| KENTUCKY | | | |
| Agricultural Experiment Station, University of Kentucky | 79,247 | 82,032 | 81,614 |
| LOUISIANA | | | |
| Agricultural Experiment Station, Louisiana State University | 58,254 | 62,419 | 62,101 |
| College of Veterinary Medicine, Louisiana State University | 42,662 | 41,680 | 41,468 |
| MAINE | | | |
| Agricultural Experiment Station, University of Maine | 20,783 | 20,492 | 20,388 |
| MARYLAND | | | |
| Agricultural Experiment Station, University of Maryland | 37,758 | 39,077 | 38,878 |

| State/Recipient | Fiscal Year 1993 Actual | Fiscal Year 1994 Est. | Fiscal Year 1995 Est. |
|---|---|---|---|
| MASSACHUSETTS | | | |
| Agricultural Experiment Station, University of Massachusetts .. | $11,112 | $10,719 | $10,664 |
| School of Veterinary Medicine, Tufts University ..... | 17,927 | 17,412 | 17,323 |
| MICHIGAN | | | |
| Agricultural Experiment Station and College of Veterinary Medicine, Michigan State University ..... | 74,654 | 73,946 | 73,569 |
| MINNESOTA | | | |
| Agricultural Experiment Station, University of Minnesota ..... | 75,155 | 77,637 | 77,242 |
| College of Veterinary Medicine, University of Minnesota ..... | 99,770 | 93,104 | 92,630 |
| MISSISSIPPI | | | |
| Agricultural and Forestry Experiment Station and College of Veterinary Medicine, Mississippi State University ..... | 71,031 | 70,902 | 70,541 |
| MISSOURI | | | |
| Agricultural Experiment Station, University of Missouri ..... | 66,236 | 64,849 | 64,519 |
| College of Veterinary Medicine, University of Missouri ..... | 96,193 | 101,801 | 101,282 |
| MONTANA | | | |
| Agricultural Experiment Station, Montana State University ..... | 71,143 | 71,849 | 71,483 |
| NEBRASKA | | | |
| Agricultural Experiment Station, University of Nebraska ..... | 203,572 | 206,721 | 205,668 |
| NEVADA | | | |
| Agricultural Experiment Station, University of Nevada ..... | 23,720 | 20,851 | 20,745 |
| NEW HAMPSHIRE | | | |
| Agricultural Experiment Station, University of New Hampshire .. | 8,588 | 8,555 | 8,511 |
| NEW JERSEY | | | |
| Agricultural Experiment Station, Rutgers University ..... | 18,811 | 17,154 | 17,067 |
| NEW MEXICO | | | |
| Agricultural Experiment Station, New Mexico State University .. | 39,460 | 39,193 | 38,993 |
| NEW YORK | | | |
| Agricultural Experiment Station, Cornell University ..... | 48,102 | 41,542 | 41,330 |
| College of Veterinary Medicine, Cornell University ..... | 187,249 | 180,472 | 179,553 |
| NORTH CAROLINA | | | |
| Agricultural Experiment Station, North Carolina State University | 88,748 | 83,028 | 82,605 |
| College of Veterinary Medicine, North Carolina State University | 12,473 | 15,668 | 15,588 |
| NORTH DAKOTA | | | |
| Agricultural Experiment Station, North Dakota State University | 52,148 | 51,395 | 51,133 |
| OHIO | | | |
| Ohio Agricultural Research and Dev. Center, Ohio State Univ. .. | 72,082 | 65,553 | 65,219 |
| College of Veterinary Medicine, Ohio State University ..... | 38,844 | 35,988 | 35,805 |
| OKLAHOMA | | | |
| Agricultural Experiment Station and College of Veterinary Medicine, Oklahoma State University ..... | 142,627 | 153,925 | 153,141 |
| OREGON | | | |
| Agricultural Experiment Station, Oregon State University ..... | 80,325 | 78,043 | 77,645 |
| College of Veterinary Medicine, Oregon State University ..... | 15,690 | 13,459 | 13,390 |
| PENNSYLVANIA | | | |
| Agricultural Experiment Station, Pennsylvania State Univ. ..... | 62,029 | 53,020 | 52,750 |
| College of Veterinary Medicine, University of Pennsylvania ..... | 78,107 | 86,665 | 86,224 |
| PUERTO RICO | | | |
| Agricultural Experiment Station, University of Puerto Rico .... | 12,870 | 11,744 | 11,684 |
| RHODE ISLAND | | | |
| Agricultural Experiment Station, University of Rhode Island ... | 6,275 | 4,957 | 4,932 |
| SOUTH CAROLINA | | | |
| Agricultural Experiment Station, Clemson University ..... | 26,051 | 25,001 | 24,874 |
| SOUTH DAKOTA | | | |
| Agricultural Experiment Station, South Dakota State University | 99,581 | 97,407 | 96,911 |

| State/Recipient | Fiscal Year 1993 Actual | Fiscal Year 1994 Est. | Fiscal Year 1995 Est. |
|---|---|---|---|
| TENNESSEE | | | |
| Agricultural Experiment Station and College of Veterinary Medicine, University of Tennessee | $64,278 | $65,472 | $65,139 |
| TEXAS | | | |
| Agricultural Experiment Station and College of Veterinary Medicine, Texas A&M University | 410,628 | 420,172 | 418,032 |
| UTAH | | | |
| Agricultural Experiment Station, Utah State University | 56,858 | 57,997 | 57,702 |
| VERMONT | | | |
| Agricultural Experiment Station, University of Vermont | 13,282 | 13,784 | 13,714 |
| VIRGINIA | | | |
| Agricultural Experiment Station and College of Veterinary Medicine, Virginia Polytechnic Institute and State Univ. | 84,628 | 86,577 | 86,136 |
| WASHINGTON | | | |
| Agricultural Experiment Station, Washington State Univ. | 28,219 | 27,303 | 27,164 |
| College of Veterinary Medicine, Washington State Univ. | 146,265 | 130,846 | 130,180 |
| WEST VIRGINIA | | | |
| Agricultural & Forestry Experiment Station, West Virginia State University | 11,950 | 12,114 | 12,052 |
| WISCONSIN | | | |
| Agricultural Experiment Station and College of Veterinary Medicine, University of Wisconsin | 178,784 | 174,750 | 173,859 |
| WYOMING | | | |
| Agricultural Experiment Station, University of Wyoming | 38,629 | 40,309 | 40,103 |
| Subtotal | 5,230,856 | 5,231,226 | 5,204,581 |
| Federal administration | 222,040 | 222,040 | 222,040 |
| Small Business Act | 79,934 | 79,934 | 106,579 |
| Biotechnology Risk Assessment | 18,170 | 17,800 | 17,800 |
| Total | 5,551,000 | 5,551,000 | 5,551,000 |

Table 6
National Research Initiative Competitive Grants Program
Proposals Submitted and Grants Awarded in Fiscal Year 1993

| Program | Proposals Received | Dollars Requested | Grants Awarded | Dollars Awarded |
|---|---|---|---|---|
| NATURAL RESOURCES AND THE ENVIRONMENT | | | | |
| NR-Forest/Rangeland/Crop Ecosystems | 100 | 21,922,778 | 22 | $3,505,885 |
| NRICGP Water Quality | 149 | 33,345,128 | 22 | 3,398,554 |
| Improved Utilization of Wood & Wood Fibers | 116 | 18,290,886 | 30 | 2,508,418 |
| Plant Response to the Environment | 180 | 38,823,793 | 52 | 6,624,128 |
| Triagency Natural Resources (a) | 3 | 214,000 | 3 | 214,000 |
| Natural Resources Strengthening | 36 | 1,676,925 | 17 | 743,120 |
| Subtotal | 584 | 114,273,510 | 146 | 16,994,105 |
| NUTRITION, FOOD QUALITY AND HEALTH | | | | |
| Human Nutrition | 120 | 31,892,556 | 27 | 3,605,210 |
| Food Safety | 71 | 13,566,062 | 17 | 2,279,456 |
| Nutrition Strengthening | 16 | 719,988 | 5 | 249,839 |
| Subtotal | 207 | 46,178,606 | 49 | 6,134,505 |
| ANIMAL SYSTEMS | | | | |
| Reproductive Biology | 127 | 29,178,205 | 30 | 5,653,500 |
| Cellular Growth/Developmental Biology | 123 | 30,352,071 | 31 | 4,955,116 |
| Animal Molecular Genetics | 39 | 10,075,833 | 14 | 2,139,723 |
| Mechanisms of Animal Disease | 288 | 69,719,244 | 58 | 9,726,506 |
| Animal Systems Strengthening | 58 | 2,747,359 | 23 | 1,043,802 |
| Subtotal | 635 | 142,072,712 | 156 | 23,518,647 |
| PLANT SYSTEMS | | | | |
| Alcohol Fuels | 21 | 4,080,041 | 6 | 575,000 |
| Nitrogen Fixation/Metabolism | 81 | 15,906,714 | 33 | 3,005,000 |
| PS-Forest/Rangeland/Crop Ecosystem | 3 | 605,374 | 0 | 125,000 |
| Pathogens | 225 | 42,154,416 | 63 | 5,744,000 |
| Photosynthesis | 77 | 15,719,717 | 28 | 2,580,000 |
| Plant Genetic Mechanisms | 115 | 28,066,023 | 46 | 4,912,000 |
| Plant Genome | 97 | 24,228,793 | 34 | 6,170,922 |
| Plant Growth & Development | 175 | 36,318,066 | 55 | 5,665,757 |
| Plant Pest Interactions, Insects, Nematodes | 253 | 46,945,039 | 73 | 7,372,000 |
| Triagency Plant Systems (a) | 2 | 365,155 | 2 | 165,155 |
| Plant Systems Strengthening | 93 | 4,212,690 | 31 | 1,292,759 |
| Subtotal | 1,142 | 218,602,028 | 371 | 37,607,593 |
| MARKETS, TRADE AND POLICY | | | | |
| Markets, Competitiveness & Technology | 93 | 15,564,966 | 19 | 1,816,435 |
| Rural Development | 67 | 11,981,346 | 14 | 1,816,435 |
| Markets Strengthening | 8 | 365,829 | 3 | 149,530 |
| Subtotal | 168 | 27,912,141 | 36 | 3,782,400 |
| PROCESSING FOR VALUE ADDED PRODUCTS | | | | |
| Processing for Value Added | 137 | 26,269,866 | 30 | 3,677,488 |
| Processing Strengthening | 20 | 708,875 | 2 | 99,742 |
| Subtotal | 157 | 26,978,741 | 32 | 3,777,230 |
| TOTAL | 2,893 | 576,017,738 | 790 | 91,814,480 |

| Performing Organization | Proposals Received | Dollars Requested | Grants Awarded | Dollars Awarded |
|---|---|---|---|---|
| 1862 Land-Grant Universities | 1,372 | $273,848,119 | 234 | $27,188,053 |
| 1890 Land-Grant Universities | 44 | 9,057,288 | 3 | 107,386 |
| Other | 8 | 1,679,441 | 2 | 159,084 |
| Other Federal Research Laboratories | 22 | 5,938,599 | 9 | 1,366,333 |
| Private Non-Profit | 82 | 22,137,588 | 23 | 2,507,131 |
| Private Profit | 13 | 3,849,445 | 2 | 380,000 |
| Private Universities | 130 | 28,824,551 | 42 | 4,228,169 |
| Public Universities | 342 | 67,615,005 | 86 | 9,746,855 |
| SAES | 575 | 101,905,872 | 333 | 37,703,891 |
| State and Local Agencies | 23 | 2,130,225 | 5 | 370,007 |
| USDA Agencies | 167 | 33,761,179 | 30 | 4,221,908 |
| Veterinary Schools & Colleges | 115 | 25,270,426 | 21 | 3,835,663 |
| TOTAL | 2,893 | 576,017,738 | 790 | 91,814,480 |

(a) Proposals submitted in FY 92 to collaborative Research in Plant Biology Program supported jointly by USDA, NSF, and DOE. Total of 66 proposals requesting $94,182,414 were submitted. These are continuation awards.

Table 7
National Research Initiative Competitive Grants
Fiscal Year 1993 Recipients
(In Dollars)

| State/Recipient | Fiscal Year 1993 Actual |
|---|---|
| ALASKA | |
| University of Alaska, Fairbanks | $149,895 |
| ALABAMA | |
| Auburn University | 349,022 |
| University of Alabama, Birmingham | 262,000 |
| Alabama A&M University | 50,000 |
| University of Alabama | 120,000 |
| ARIZONA | |
| University of Arizona | 1,448,844 |
| Arizona State University | 110,000 |
| Northern Arizona University | 49,976 |
| ARKANSAS | |
| University of Central Arkansas | 90,000 |
| University of Arkansas, Pine Bluff | 49,886 |
| University of Arkansas | 872,790 |
| CALIFORNIA | |
| University of California, Davis | 4,048,262 |
| University of California, Berkeley | 1,626,500 |
| San Diego State University | 50,000 |
| University of California, Santa Barbara | 130,000 |
| University of California, San Diego | 1,100,000 |
| University of California, Santa Cruz | 35,648 |
| University of California, Riverside | 645,000 |
| University of California, Los Angeles | 355,000 |
| Stanford University | 90,215 |
| Palo Alto Medicial Foundation | 200,000 |
| The Salk Institute for Biological Studies | 210,000 |
| DNA Plant Technologies, Inc. | 130,000 |
| Vincent M. Eckhart | 61,400 |
| Sheila M. Colby | 82,000 |
| USDA, ARS Pacific West Area | 410,000 |
| Forest Service, Pacific SW Forest & Range Expt. Station | 423,000 |
| COLORADO | |
| Colorado State University | 718,000 |
| University of Denver | 170,000 |
| University of Colorado Health Sciences Center, Denver | 263,000 |
| Xenometrix, Inc. | 250,000 |
| USDA, ARS Northern Plains Area | 294,065 |
| CONNECTICUT | |
| Connecticut Agricultural Experiment Station | 340,000 |
| University of Connecticut, Storrs | 885,342 |
| Yale University | 120,000 |
| Wesleyan University | 169,520 |
| DELAWARE | |
| University of Delaware | 650,490 |
| DISTRICT OF COLUMBIA | |
| Carnegie Institution of Washington | 205,200 |
| USDA, ERS, ATAD | 118,720 |
| FLORIDA | |
| Florida State University | 115,000 |
| University of Florida | 2,369,276 |
| University of South Florida | 60,000 |
| Florida International University | 90,000 |
| Tampa Bay Research Institute | 232,558 |

| State/Recipient | Fiscal Year 1993 Actual |
|---|---|
| GEORGIA | |
| University of Georgia Research Foundation | 1,945,580 |
| USDA, ARS South Atlantic Area | 868,000 |
| Emory University | 78,527 |
| Institute of Paper Science & Technology | 88,000 |
| HAWAII | |
| University of Hawaii | 439,378 |
| IDAHO | |
| University of Idaho | 971,559 |
| ILLINOIS | |
| Illinois State University | 199,710 |
| Western Illinios University | 49,994 |
| Northern Illinois University | 130,000 |
| Northwestern University | 50,000 |
| University of Illinois, Chicago | 248,000 |
| University of Illinois, Urbana | 2,090,117 |
| USDA, ARS Mid-West Area | 735,481 |
| INDIANA | |
| Methodist Hospital of Indiana, Inc | 92,000 |
| Indiana University | 80,000 |
| Purdue University | 1,923,051 |
| IOWA | |
| Iowa State University | 1,618,755 |
| University of Iowa | 450,000 |
| KANSAS | |
| Kansas State University | 1,106,560 |
| University of Kansas | 85,000 |
| KENTUCKY | |
| University of Kentucky | 996,438 |
| Murray State University | 43,120 |
| LOUISIANA | |
| Louisiana State University & A&M College | 609,000 |
| Northwestern State University | 49,704 |
| University of Southwestern Louisiana | 149,930 |
| USDA, Forest Service Southern Forest Experiment Station | 410,000 |
| MAINE | |
| University of Maine | 388,940 |
| MARYLAND | |
| University of Maryland | 566,000 |
| American Society of Tropical Veterinary Medicine | 5,000 |
| John Hopkins University | 90,000 |
| American Society for Cell Biology | 5,000 |
| USDA, ARS Beltsville Area | 1,150,642 |
| Advanced Bioscience Lab, Inc. | 154,084 |
| University of Maryland, Baltimore | 212,000 |
| MASSACHUSETTS | |
| University of Massachusetts | 1,081,165 |
| Massachusetts Institute of Technology | 151,640 |
| University of Massachusetts Medical School | 248,063 |
| Tufts University | 129,718 |
| Harvard University | 87,160 |
| Massachusetts General Hospital | 305,000 |
| Worcester Polytechnic Institute | 50,000 |
| MICHIGAN | |
| Michigan State University | 1,974,038 |
| University of Michigan | 249,070 |
| Herbert H. & Grace A. Dow Foundation | 180,000 |
| Jennifer L. Stoyenoff | 69,607 |
| Carol R. Buell | 77,000 |

| State/Recipient | Fiscal Year 1993 Actual |
|---|---|
| MINNESOTA | |
| University of Minnesota | 2,054,387 |
| St. Cloud State University | 50,000 |
| Robert G. Gregerson | 80,000 |
| MISSISSIPPI | |
| Mississippi State University | 365,881 |
| University of Southern Mississippi | 334,865 |
| MISSOURI | |
| University of Missouri | 1,679,210 |
| Washington University | 111,757 |
| MONTANA | |
| Montana State University | 637,509 |
| University of Montana | 90,000 |
| NEBRASKA | |
| University of Nebraska | 1,337,408 |
| NEVADA | |
| University of Nevada | 220,052 |
| NEW HAMPSHIRE | |
| University of New Hampshire | 497,459 |
| Dartmouth College | 60,000 |
| NEW JERSEY | |
| Rutgers, The State University | 704,816 |
| NEW MEXICO | |
| New Mexico State University | 404,013 |
| NEW YORK | |
| Cornell University | 4,275,617 |
| State University of New York, Albany | 684,000 |
| State University of New York, Buffalo | 351,138 |
| University of Rochester | 53,000 |
| Boyce Thompson Institute | 725,873 |
| Rensselaer Polytechnic | 80,000 |
| New York University | 70,000 |
| Siena College | 120,000 |
| State University of Binghamton | 100,000 |
| New York Botanical Garden | 100,000 |
| Roswell Park Division & New York State Dept. of Health | 132,500 |
| NORTH CAROLINA | |
| North Carolina State University | 1,690,818 |
| University of North Carolina, Chapel Hill | 796,460 |
| Duke University | 614,000 |
| NORTH DAKOTA | |
| North Dakota State University | 1,251,011 |
| University of North Dakota | 100,000 |
| OHIO | |
| Ohio State University Research Foundation | 1,447,825 |
| Ohio University | 110,000 |
| Case Western Reserve University | 112,000 |
| Miami University | 425,000 |
| OKLAHOMA | |
| Oklahoma State University | 602,758 |
| University of Oklahoma | 125,000 |
| Langston University | 7,500 |
| University of Tulsa | 48,911 |
| University of Central Oklahoma | 48,990 |
| OREGON | |
| Oregon State University | 949,341 |
| University of Oregon | 340,000 |
| Oregon Health Science Institute | 150,000 |

| State/Recipient | Fiscal Year 1993 Actual |
|---|---|
| PENNSYLVANIA | |
| Pennsylvania State University | 2,989,581 |
| Duquesne University | 239,969 |
| University of Pennsylvania, Philadelphia | 484,327 |
| USDA, ARS North Atlantic Area | 545,000 |
| Millersville University of Pennsylania | 49,875 |
| West Chester University of Pennsylvania | 49,960 |
| Drexel University | 90,000 |
| Lehigh University | 95,000 |
| RHODE ISLAND | |
| Gordon Research Conference | 49,000 |
| University of Rhode Island | 285,318 |
| Brown University | 150,000 |
| SOUTH CAROLINA | |
| University of South Carolina | 161,012 |
| Clemson University | 568,280 |
| Medical University of South Carolina | 122,009 |
| SOUTH DAKOTA | |
| South Dakota State University | 360,981 |
| Augustana College | 68,472 |
| University of South Dakota | 100,000 |
| TENNESSEE | |
| Vanderbilt University | 110,000 |
| University of Tennessee, Knoxville | 764,783 |
| TEXAS | |
| Texas Tech University | 575,538 |
| University of Texas, Austin | 200,000 |
| Texas Tech University Health Science Center | 215,000 |
| Baylor College of Medicine | 370,000 |
| Rice University | 100,000 |
| University of Texas Southwestern Medical Center at Dallas | 237,000 |
| Texas A&M Research Foundation | 4,085,158 |
| Southern Methodist University | 70,000 |
| Trinity University | 59,930 |
| USDA, ARS Southern Plains Area | 100,000 |
| University of Texas M.D. Anderson Cancer Center | 212,209 |
| UTAH | |
| Utah State University | 110,000 |
| University of Utah | 230,000 |
| Brigham Young University | 120,000 |
| VERMONT | |
| University of Vermont | 568,300 |
| Lyndon State College | 49,770 |
| VIRGINIA | |
| Virginia Polytechnic Institute & State University | 893,980 |
| James Madison University | 175,000 |
| Virginia Commonwealth University | 123,781 |
| WASHINGTON | |
| Washington State University | 1,737,003 |
| University of Washington | 916,744 |
| NW Fisheries Science Center, Coastal Zone & Estuarine Studies | 222,000 |
| WEST VIRGINIA | |
| West Virginia University | 910,502 |

| State/Recipient | Fiscal Year 1993 Actual |
|---|---|
| WISCONSIN | |
| University of Wisconsin, Madison | 4,296,805 |
| Forest Service, Forest Products Laboratory | 311,333 |
| Medical College of Wisconsin | 165,000 |
| University of Wisconsin, Milwaukee | 74,692 |
| WYOMING | |
| University of Wyoming | 579,429 |
| Total | 91,814,480 |
| Federal administration (4%) | 3,900,000 |
| Small Business Act | 1,404,000 |
| Biotechnology Risk Assessment | 381,520 |
| Total | 97,500,000 |

Table 8
National Needs Graduate Fellowships Grants
Proposals Submitted and Grants Awarded in Fiscal Year 1993

| | Proposals Submitted | | | Grants Awarded | | |
|---|---|---|---|---|---|---|
| | Proposals Received | Fellows Requested | Dollars Requested | Grants Awarded | Fellows Supported | Dollars Awarded |
| Biotechnology Plant | 29 | 110 | $5,940,000 | 10 | 21 | $1,134,000 |
| Food, Forest Products or Agribusiness Marketing | 36 | 125 | 6,750,000 | 11 | 21 | 1,134,000 |
| Human Nutrition (a) | 1 | 1 | 18,480 | 1 | 1 | 18,480 |
| Water Science | 24 | 93 | 5,022,000 | 10 | 21 | 1,108,520 |
| TOTAL | 90 | 329 | 17,730,480 | 32 | 64 | 3,395,000 |

(a) Completion of funding for a partial fellowship awarded in FY 1992.

Table 9
National Needs Graduate Fellowship Grants
Fiscal Year 1993 Recipients
(In Dollars)

| Area/Recipient | Fiscal Year 1993 Actual |
|---|---|
| BIOTECHNOLOGY - PLANT | |
| Iowa State University | 162,000 |
| Worcester Polytechnic Institute, Massachusetts | 108,000 |
| Michigan State University | 108,000 |
| University of Minnesota | 216,000 |
| Cornell University, New York | 108,000 |
| North Carolina State University | 216,000 |
| Oregon State University | 108,000 |
| Pennsylvania State University | 108,000 |
| ENGINEERING - FOOD, FOREST PRODUCTS OR AGRICULTURAL | |
| University of California, Davis | 216,000 |
| University of Florida | 108,000 |
| University of Illinios | 162,000 |
| University of Nebraska | 54,000 |
| Rutgers University, New Jersey | 108,000 |
| Cornell University, New York | 162,000 |
| Oregon State University | 108,000 |
| Texas A&M University | 54,000 |
| University of Wisconsin | 162,000 |
| HUMAN NUTRITION | |
| University of Wisconsin (a) | 18,480 |
| WATER SCIENCE | |
| University of California, Davis | 108,000 |
| University of California, Riverside | 108,000 |
| Colorado State University | 108,000 |
| University of Florida | 108,000 |
| Michigan State University | 108,000 |
| University of Minnesota | 108,000 |
| University of Nebraska | 162,000 |
| North Carolina State University | 82,520 |
| Oklahoma State University | 108,000 |
| Texas A&M University | 108,000 |
| Subtotal | 3,395,000 |
| Federal administration (3%) | 105,000 |
| Total | 3,500,000 |

(a) Completion of funding for a partial fellowship awarded in FY 1992.

Table 10
Competitive Challenge Grants
Fiscal Year 1993 Recipients
(In Dollars)

| Recipient | Fiscal Year 1993 Actual |
|---|---|
| California Polytechnic State University | $62,587 |
| Colorado State University | 64,568 |
| University of Connecticut | 48,278 |
| Florida State University | 68,000 |
| Iowa State University | 130,000 |
| University of Illinois | 71,950 |
| Purdue University | 130,000 |
| University of Kentucky | 64,475 |
| Louisiana Tech University | 44,279 |
| Michigan State University | 71,472 |
| University of Minnesota | 65,803 |
| New Mexico State University | 130,000 |
| Cornell University | 45,527 |
| Oregon State University | 130,000 |
| Texas A&M University | 64,568 |
| Texas Tech University | 66,825 |
| Utah State University | 67,985 |
| Virginia Polytechnic Institute and State University | 128,683 |
| Subtotal | 1,455,000 |
| Federal administration (3%) | 45,000 |
| Total | 1,500,000 |

Table 11
1890 Institution Capacity Building Grants
Fiscal Year 1993 Recipients
(In dollars)

| Category/Recipient | Fiscal Year 1993 Actual |
|---|---|
| **Research Capacity Building Grants** | |
| Alabama A&M University | $602,308 |
| Tuskegee University, Alabama | 560,879 |
| Delaware State College | 276,098 |
| Florida A&M University | 594,635 |
| Fort Valley State College | 297,500 |
| Kentucky State University | 688,640 |
| University of Maryland, Eastern Shore | 254,040 |
| Alcorn State University, Mississippi | 329,292 |
| North Carolina A&T State University | 287,280 |
| Langston University, Oklahoma | 272,041 |
| South Carolina State College | 296,301 |
| Prairie View A&M University | 281,454 |
| Virginia State University | 152,953 |
| Subtotal, Research Grants | 4,893,421 |
| **Teaching Capacity Building Grants** | |
| Alabama A&M University | 382,363 |
| Tuskegee University, Alabama | 423,792 |
| University of Arkansas-Pine Bluff | 343,480 |
| Delaware State College | 283,571 |
| Florida A&M University | 380,477 |
| Kentucky State University | 189,919 |
| Southern University | 373,600 |
| University of Maryland-Eastern Shore | 423,524 |
| Lincoln University | 136,651 |
| Alcorn State University, Mississippi | 225,000 |
| North Carolina A&T State University | 721,398 |
| Langston University, Oklahoma | 562,241 |
| Tennessee State University | 339,152 |
| Prairie View A&M University | 186,082 |
| Subtotal, Teaching Grants | 4,971,250 |
| Federal administration (3%) | 307,500 |
| Small Business Act | 74,569 |
| Biotechnology Risk Assessment | 3,260 |
| Total | 10,250,000 |

# COOPERATIVE STATE RESEARCH SERVICE

## STATUS OF PROGRAM

Current activities, progress, and current programs under the CSRS appropriation items are outlined below:

## PAYMENTS UNDER THE HATCH ACT

The Hatch research program at the State Agricultural Experiment Stations is designed to promote efficient production, marketing, distribution, and utilization of crops and livestock essential to the food supply, health and welfare of the American people while conserving resources and improving rural living conditions. Equally important, students are provided training opportunities to assist in scientific research projects conducted at the State Agricultural Experiment Stations.

The following describes current activities and selected examples of accomplishments supported under this appropriation item.

### CURRENT ACTIVITIES

Hatch Act funds support the following types of research.

-- Forest and Natural Resources - Fourteen percent of total Hatch research funds are allocated to this program. Areas of research include forestry, soil and land use, water and watersheds, outdoor recreation, environmental quality, fish and wildlife, and remote sensing. Forestry related research under the Hatch Act is closely coordinated with the McIntire-Stennis Cooperative Forestry Research program which has similar research objectives. The Hatch forestry research program is characterized by a high degree of multi-institutional or regional projects.

-- Crop Resources - This program receives forty percent of total Hatch funds for research. Included in this research are crop protection and production systems for dependable and efficient production, quality improvement, quality maintenance, product development, and related commodity aspects of crops marketing.

-- Animal Resources - Twenty-six percent of total Hatch funds are allocated to this research program. Areas of research include protection, production, and management of beef and dairy cattle, swine, sheep, other animals, poultry, and aquaculture. Also included are quality improvement, product development, and related commodity aspects of marketing.

-- People, Communities, and Institutions (Including Rural Development) - This program receives five percent of total Hatch funds for research. Included in this area are individuals and families, living environment, communities, institutions, and services.

-- Competition, Trade, Adjustment, Price and Income Policy - Six percent of total Hatch funds for research are allocated to this program. This research addresses farm adjustments, prices and income, economic aspects of marketing, and competition.

-- Food Science and Human Nutrition - This program receives five percent of total Hatch funds for research. Research areas include human nutrition, food processing, food safety, food service and storage, distribution, and marketing.

## SELECTED EXAMPLES OF RECENT PROGRESS

Stable Isotopes to Measure Calcium and Vitamin D Interactions in Humans. Vitamin D deficiency results from gastrointestinal diseases in which calcium absorption is poor and when diets low in absorbable calcium are consumed. Researchers in Connecticut hypothesized that the vitamin D deficiency resulting from inadequate calcium absorption is caused by a faster breakdown of vitamin D metabolites. To study this in humans, a protocol was developed using a new form of vitamin D labeled with a non-radioactive isotope deuterium and two non-radioactive calcium isotopes. Young men were fed diets high in fiber and low in calcium, and the metabolism of labeled calcium and vitamin D was followed. The study showed that the breakdown of vitamin D was twice as fast as had been demonstrated previously using less accurate methods. Large amounts of dietary fiber reduced calcium absorption from the diet and slowed down calcium metabolism in bone. The rate of vitamin D breakdown was faster when calcium absorption was poor. The realization that vitamin D is degraded more rapidly infers that the requirement for this vitamin should be increased.

Regulatory Proteins are Altered by Riboflavin Status and Caloric Restriction. Changes in diet can alter the way in which people utilize energy and, consequently, growth. However, processes such as growth actually represent a wide range of biochemical processes which must all be turned on or off systematically. Researchers in Minnesota believe that coordination is accomplished by nuclear regulatory proteins. That is, some dietary event signals a change in specific nuclear regulatory proteins that then alter the way in which specific regions of nuclear DNA are transcribed to messenger RNAs which, in turn, results in changes in enzymes. Nuclear enhancer binding proteins (NEBP) have been proposed to be very important in regulation of energy metabolism. The researchers fed rats a diet deficient or adequate in riboflavin where energy metabolism and growth are profoundly altered. Because riboflavin deficient rats voluntarily decrease their food intake, a caloric restricted group was included. NEBP increased 2-fold due to caloric restriction and 3-fold with riboflavin deficiency. These changes in the NEBP were shown to be the result of changes in the level of their specific messenger RNAs. Further, the change in messenger RNAs could be explained by changes in how fast the specific RNAs were transcribed from the DNA templates. They concluded that the level of these nuclear regulatory proteins respond to changes in dietary status and that these changes are regulated at the level of transcription.

Mapping The Swine Genome. Eight Agricultural Experiment Stations (Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Oklahoma and Wisconsin), three ARS Laboratories (Nebraska, Maryland and Iowa) and one other university (Northeastern) are cooperating in Regional Research Project NC-210 to map the swine genome. Rapid progress is being made. Over 200 polymorphic loci have been identified and located on the chromosomes. Research at the Iowa Agricultural Experiment Station has determined that the major histocompatibility complex (MHC) of genes in swine is located on chromosome 7. These MHC genes have been associated with health traits, and four specific MHC genes have been identified and located on chromosome 7. Swine genome research will result in swine breeders being able to more effectively select pigs that grow faster, have larger litters, and are leaner and healthier. Producers and consumers will benefit from a more efficient pork industry that produces pork products of higher quality.

Gene Transfer to Improve Body Composition in Beef Cattle. Methodology has been developed at Iowa State University to transfer specific genes containing DNA into the cells of growing and adult cattle. The gene being transferred becomes active in the liver cells and produces the protein encoded by the transferred gene. This technique has been used successfully, using cells in culture and in animals, to alter body composition by diverting body weight gain to lean tissues and less to adipose tissue. Consumers, cattle producers

and processors could benefit from the new technology which diverts body weight gain away from adipose tissue triglycerides (fat) and toward muscle protein. These techniques of gene delivery could also be adapted for genetic treatment of human and animal diseases.

Reproductive Management in Dairy Cattle and Sheep. Ultrasonography has been used to develop non-invasive procedures for the daily visual observation of the ovaries and reproductive tracts of cows and ewes. Research at New York has characterized follicular dynamics during the estrous cycles of dairy heifers, and similar techniques have been used with cows to investigate follicular dynamics at Missouri, synchronization of ovulation at Wisconsin, and early embryonic death losses at Kansas. Studies with sheep at West Virginia have enabled early pregnancy diagnosis and the monitoring of the reproductive tract and ovaries in cycling and non-cycling ewes to detect pregnancy, twinning, early post-breeding conception failure, aberrant ovarian function and seasonal anestrus. These techniques may be used to enhance the management of flocks and herds.

Treatment and Recycling of Poultry and Swine Wastes. A high temperature (50-55 C) anaerobic reactor for animal waste digestion and conversion to methane has been developed for the reduction, treatment and recycling of poultry and swine wastes. The digestion process has been demonstrated to be highly efficient in a low-cost model digester constructed and operated at North Carolina. In addition to the production of biogas, the solid residue harvested from the digester is high in calcium, phosphorus, and other nutrients, and can be successfully used as an animal feed supplement. The digestion process within the system has been shown to kill all pathogens tested, and thus, protect environmental health. This technology is especially beneficial, since it converts animal waste to a useful energy source, and reduces the need to spread animal manures on land.

Development of Improved Diets for Swine and Poultry. Use of the ideal protein concept allows more accurate formulation of diets for swine and poultry to meet amino acid requirements with minimal excesses under all dietary, environmental and body compositional conditions. Nitrogen waste products (feces and urine) are minimized. In trials conducted at Illinois, optimal ratios of lysine to other indispensable amino acids such as threonine, cystine and tryptophan were developed for growth and body protein accretion in growing swine and poultry. Since amino acid requirements vary widely as a function of sex, body leanness (due to genetics), and dietary metabolizable energy, nutritional modeling using the ideal protein concept should provide substantial savings to these animal industries.

Codling Moth Mating Disruption. A synthetic mixture containing three compounds of the female sex pheromone of the codling moth were permeated through an isolated Asian pear orchard with a recorded history of codling moth infestations. This procedure by the University of California provided excellent suppression of the codling moth in the Sacramento Valley orchard. This selective intervention in the management of orchard moths avoids deleterious effects upon beneficial agents and avoids substantial losses in apple, pear, walnut and plum orchards in California that might occur if no control measures were taken.

Biosystematics of Insects. Extensive monitoring of the deer tick in Illinois has resulted in the confirmation of its infestation in five counties where it had not previously been detected. This brings the total number of counties that are infected by the pest in the state to eighteen. 20-30% of the ticks in the two counties that have the severest infestation were found to carry the spirochete for Lyme Disease. This information gathered by the University of Illinois has significance for the recreational use of public lands in these counties as well as for determining control techniques.

Fertilizer Management. Wyoming researchers have determined that point injection of nitrogen fertilizer used for sugar beet production can increase the efficiency of nitrogen recovery and reduce the application rate needed for optimum yield by 40-50 pounds of nitrogen per acre. This could mean a savings of $500,000-$750,000 in fertilizer cost for Wyoming sugar beet producers while reducing nitrogen leaching loss and the potential for ground water pollution.

Waste Management. A multidisciplinary effort at Auburn University involved agronomists, horticulturalists, animal scientists, agricultural engineers and others to develop new options in waste management. This research is helping to define the pollution potential and improve application methods for broiler litter to ensure its environmentally-sound use. The work has already shown that poultry litter can be composed to form a high-quality fertilizer, ensiled with forages and/or used in potting media for ornamental plants. Other studies include the safe disposal of chicken carcasses, construction of wetland filters for hog lagoons and using cotton gin trash and newsprint as soil amendments.

A New Route to Boosting Yields of Important Crops. A scientist at Cornell University has applied a new analytical system for yield with statistical methods for breeding trials. This approach has increased bean yields by 30% and demonstrated that plant breeders have the potential for major increases in crop yields world-wide. This approach is contrary to prevailing thought that the crop yields cannot be increased significantly through traditional methods.

Beginning in 1988, Cornell scientists have used computer-based statistical methods to quantify the interaction between crop genetics and the environment, paying special attention to the total weight of the plant biomass, compared to yields since 1970. Biomass accumulation per day in yield trials is now understood to be a critical parameter in selecting cultivars that have the potential to yield more than currently used varieties. This analytical method has been applied to scores of field trials of beans, corn, and soybeans conducted throughout the United States, Canada, Mexico, and Central America. These studies have established new principles to guide plant breeders in their research aimed at producing higher yielding plants that are better tailored to specific locations and growing seasons.

Production of Low Fat Dairy Products. Consumer interest in reducing their fat intake has resulted in a market for low and reduced fat and cholesterol dairy products. Researchers at South Dakota State University developed a process which incorporates steam-stripped, cholesterol-free anhydrous milk fat at various levels into skim milk which can then be used for manufacturing fluid milk products and other low fat, low cholesterol value-added dairy products such as cheese and ice cream. The process has been used by seven food companies in the U.S. to manufacture and market low fat, low cholesterol fluid milk products; the companies are also investigating the manufacture and marketing of other low fat dairy products using the process.

Detection of Seafood Toxins. Finfish frequently become toxic due to the ingestion of toxin-producing microscopic algae; exposure of humans through ingestion of such foods results in serious and sometimes fatal poisonings such as ciguatera. Researchers at the University of Arizona developed a solid-phase immunobead method kit for practical analysis of toxins associated with ciguatera poisoning. This test kit can be used for seafood monitoring programs to identify harvest areas of low risk potential and to monitor fish in the marketplace, from fishing vessels to the consumer. A diagnostic kit was also developed by the researchers to detect ciguatera-related compounds in human serum, making it possible to properly diagnose illnesses associated with these seafood toxins. These tests can also be used for detection in shellfish and clinical diagnosis of diarrhetic shellfish poisoning. The researchers are working closely with a private sector concern to commercialize the test kits.

Immobilized Cell Bioreactor for Milk Fermentations. Use of bioreactors for milk fermentation may allow continuous, automated production of fermented dairy foods. Such processes could reduce the labor costs and time requirements of current processing methods. Researchers at North Carolina State University designed and characterized a bioreactor that could be used for continuous acidification and inoculation of milk with starter culture. The starter bacteria was entrapped or immobilized in a calcium alginate gel matrix and spread as a thin film on a spiral stainless steel mesh which was then placed in the bioreactor through which milk could be passed continuously for fermentation. This novel immobilized cell bioreactor exhibits greater fermentation productivity and less susceptibility to phage infection during continuous bioprocessing of milk than a free-cell bioreactor. At least one major food processor has expressed an interest in the process.

Ruffed Grouse. Ruffed grouse are generally acknowledged to be the "king of gamebirds," renowned for their elusive habits and erratic flight. Historically, they have been considered the prime example of a wildlife species that could not be affected by hunting. Wildlife Ecology researchers at the University of Wisconsin-Madison have previously documented high harvest rates of ruffed grouse on public lands near cities, but, generally, these results have been considered to have limited application to regional grouse populations in the Lake States. In the past four years, the researchers have documented surprisingly high harvest rates on relatively remote areas in northwestern Wisconsin. These areas were selected specifically because hunting pressure there was thought to be low. These results have caused researchers and managers alike to pay more attention to the potential influence of hunting on the distribution and abundance of this popular gamebird.

Agricultural Research Applies Tools to Benefit Measurement. Exactly how one goes about evaluating the benefits derived from goods that do not enter into the normal (economic) marketplace has continued to receive the attention of scientists since the early 1960's. While there are no definitive answers, researchers supported by Hatch funding, have led the way in the implementation of existing theoretical concepts to provide information to help resolve issues facing public agencies in the initial location and relocation of publicly provided recreation facilities. One such grouping, consisting of researchers at Colorado State University, the University of California, and the University of Kentucky, has used the concepts developed to assist the Army Corps of Engineers in addressing significant policy issues.

## COOPERATIVE FORESTRY RESEARCH

The Cooperative Forestry Research (McIntire-Stennis) program provides knowledge essential to the efficient and effective use of the Nation's forest resources. Timber production, forest land management, wood utilization, and the associated development of new products and distribution systems are the key elements of forestry research. This research also deals with the other forest products -- wildlife, recreation, water, range, and environmental quality -- whose production, management, and distribution are an inextricable part of the long term productivity and profitability of the integrated system of forest resources.

In addition, the Cooperative Forestry program has the objective of helping to create and maintain a highly qualified cadre of forest scientists through their direct involvement in the research projects as a part of their graduate education. These young men and women, educated in the sciences fundamental to forestry, will ultimately help to maintain the well-being of the United States through service in private industry, in various levels of government, and in academic institutions as managers and scientists.

Following is a description of some of the major activities of the program and selected examples of accomplishment supported under this appropriation item.

## CURRENT ACTIVITIES

The following research program activities indicate the range of research funded under this Act:

Forestry research is broadly inclusive and thus deals with many of the current concerns of the Nation. Several areas that have long been important in forestry research include acid rain, global climate change, recreation, wetlands, reforestation, and carbon dioxide concentration in the atmosphere.

Increasing the profitability of the forest resource base through effective management of the forest resource is being vigorously pursued.

Biotechnology in forestry promises to enhance the benefits from modified trees due to faster growth rates, improved wood characteristics for various uses, and greater freedom from losses due to insects and diseases. The latter achievement would reduce the need to use chemicals to control these forest pests, thus benefiting the environment.

The advent of high capacity microcomputers has made possible several developments in information management such as: expert systems, data base manipulations, and map and image processing. Forestry research is combining these new tools for improved management capability for production of the multiple outputs of forests.

Water quality and quantity is a major aspect of forest management which is becoming more essential as our population grows. Forests cover one-third of the nation's land and are initial recipients of an even larger portion of the precipitation received. Research to improve water yield from forested watersheds is a major thrust.

Forest wildlife research is providing essential information for science-based wildlife management. This research is also the basis for forest managers to understand and deal with the impacts of wildlife on the forest, as well as to know the effects of forestry practices on wildlife species associated with forests.

Changes in the agricultural economy make it imperative that research efforts focus on enhancing productivity and conserving resources. Research programs are seeking to develop knowledge and techniques which will facilitate wise choices in the utilization of the nation's forest resources.

## SELECTED EXAMPLES OF RECENT PROGRESS

Holistic Forest Health Increases Efficiency. Scientists at Oregon State University's College of Forestry have shown that trees growing on thinned plots had a 60% increase in growth efficiency while trees on plots that were both thinned and fertilized averaged a 135% increase. This research suggests that as ponderosa pine forests are replaced by species such as grand fir, a result of fire suppression, nitrogen demands increase beyond levels normally supplied in the ponderosa pine/true fir type. The additional stress in stands with late successional species, such as grand fir, makes the stands susceptible to insects, fires, and ultimately mortality. Such studies have given rise to the concept of Integrated Forest Protection, a holistic approach to forest ecosystem health. This theory would postulate that the general health of forest trees and, thus, of ecosystems is closely linked to minimizing stresses such as drought and soil infertility -- i.e., reduction of those stresses which predispose a tree and a stand to insect and disease damage.

Wood Processing Facilities. Primary and secondary wood processing facilities provide economic benefits to many segments of the U.S. economy. Plywood manufacturing is one such industry. It provides jobs in rural communities, markets for timber, and consumer products that are competitive world wide. Researchers at Mississippi State School of Forest Resources examined the product mix a plant could manufacture and sell given product prices, timber costs, glue costs, and labor and other operating expenditures. The resulting decision model is now in use by 14 plywood plants which are saving an estimated $1 million per plant per year.

Growing Trees Instead of Weeds Saves Money. Weed control in forest nurseries can greatly influence seedling size and number. In past years, weed control was a large portion of production cost and has caused significant reductions in the quality of seedlings produced from forest nurseries. A research project at the Auburn University School of Forestry has greatly enhanced managers' ability to control weeds in such nurseries. Weeding costs at some nurseries have dropped from 20% of production costs to less than 1%. Estimated total savings in weeding costs at forest nurseries in 13 southern states exceeds $2 million each year. All of the currently used herbicides in southern nurseries were registered with data based on this project.

Modified Disk Flaker Design and Process Methodology. In many wood processing operations, raw wood is first reduced to more fundamental components through mechanical or chemical action. Scientists at the University of Georgia School of Forestry have developed a modified disk flaker design and process methodology for processing residues into curled shavings. The wood curls have been found especially useful as (a) a biodegradable and renewable resource-based alternative to the non-degradable and petroleum based foamed polystyrene "peanuts and chips" commonly used as cushioning loose fill in packaging and (b) as a low dust large animal bedding. To date, the patents have been licensed to a company which has nine machines in operation at six locations in the U. S. Overseas agreements are being negotiated and plans call for having as many as forty or more machines in operation by 1995.

Bacteria Help Cleanse Treating Plant Sites. Bioremediation of polychlorinated phenols and creosote residues in soils and groundwater from abandoned wood preservation plants and other manufacturing sites has proven to be effective. Researchers in the Department of Forest Products, School of Forest Resources, Mississippi State University have isolated and grown bacteria that breakdown these hazardous chemicals into carbon dioxide, water and other non-hazardous residues. These biological agents have been proven a cost effective and efficient means to reduce these hazardous wastes at several test sites throughout the nation.

## EVANS-ALLEN PROGRAM, 1890 COLLEGES AND TUSKEGEE UNIVERSITY

The Evans-Allen formula-funded research program for the 1890 Colleges and Tuskegee University was established in the Food and Agriculture Act of 1977, as amended. Section 1445 of P.L. 95-113 authorized annual appropriations to support continuing agricultural research at the 1890 Colleges and Tuskegee University and funds were appropriated beginning in FY 1979. This program indirectly supports development of agricultural expertise by providing training opportunities for students to assist in the research projects being conducted by scientists at these institutions.

The following is a description of current activities and selected examples of accomplishments supported under this appropriation item.

### CURRENT ACTIVITIES

The annual research program at the 1890 Colleges and Tuskegee University places emphasis on small-scale agriculture, human nutrition, rural development and quality of living, crop resources, and animal resources.

Small-Scale Agriculture. Research on farm systems for small scale producers must be totally integrated into a comprehensive plan responsive to total needs of a particular farm enterprise system coupling production, utilization, and marketing of the farm commodity. In order to increase agricultural incomes from small farm units, total comprehensive research plans have been developed that consider all aspects of cost and management efficiencies in production, utilization, and marketing and then integrate these separate factors into a comprehensive program package.

Human Nutrition. Human nutrition research provides fundamental knowledge about the relationship of food eaten by people to their physical and mental status and development and the levels of well-being maintained during their life span. Research has also been conducted on human requirements for nutrients.

Rural Development and Quality of Living. Research on income improvement in rural communities identifies ways by which depressed areas can attain full economic potential. Only by providing adequate income opportunities can these communities retain more of their young people and finance the kind of public and private facilities and services that make them attractive places to live.

Crop Resources. Breeding, selection, and use of crops is a major concern of scientists. This includes development of drought, insect, and disease resistant cultivars. Evaluation of the efforts of crops to be grown on soils not suitable for commonly grown crops because of pathogens, nematodes, and insects are being undertaken. Studies are being conducted on the mechanisms of both natural and artificial regulators that are known to influence plant growth and development.

Animal Resources. Studies are being conducted on disease, parasites, and other health hazards that are major causes of reduced productivity in food animals. Research objectives are aimed at the development of technology for prevention, treatment, and control of these problems. Research of sufficient concentration is being undertaken to elucidate the cellular mechanisms that govern protein and fat synthesis in farm animals. Investigations of genetic, nutrition, and endocrinological factors provide needed information on biomechanisms.

## SELECTED EXAMPLES OF RECENT PROGRESS

Enhancing Aflatoxin Resistance, Nutritional and Flavor Quality of Peanut. Researchers at Florida A&M University are working on identifying plant factors responsible for aflatoxin contamination of peanut under drought stress conditions. In this connection, an *in vitro* seed culture system has been developed to grow immature peanuts in an artificial media. This culture system supported growth of peanut seed of different maturities as determined by changes in morphological characteristics such as cracking of the seed coat, increase in seed size and weight, and seed germinability. Like the field grown peanuts, *in vitro* cultured seeds also produced phytoalexins (antimicrobial compounds) as well as aflatoxins following fungal (Aspergillus spp.) infestation. In addition, imposition of drought stress in cultures caused loss in the ability of the seed to produce phytoalexins and increased susceptibility to aflatoxin contamination. The seed culture system is being used to identify peanut genotypes resistant to aflatoxin contamination under drought stress.

Factors Affecting Quantity of Fiber Growth. Langston University (Oklahoma), researchers developed an isolated skin perfusion technique to study the effects of hormones and nutrient uptake by the skin for mohair production. The technique was validated using glucose and insulin. Thus, it is possible to isolate the skin and study mohair production and the utilization of nutrients by the skin independently of metabolism in the whole animal. With

this procedure, one obtains the isolation benefits of an in vitro procedure, with the long-term viability of an in vivo system.

Allopathic Effects of Crop Plants and Weeds on Soybean. Langston University (Oklahoma) research efforts have resulted in isolation of a phytotoxin from water extract of lambsquarters shoots. The phytotoxin is more effective against broad leaf (dicotyledonous) plants at pre-germination than at post-germination stage, and is slowly biodegradable. Presumptive identification of the phytotoxin indicates chlorogenic acid as the principal component. It has a potential of being useful as a base in formulation of a herbicide. Based on the specific physiological function being affected by the phytotoxin (chlorogenic acid), some structural modification of the compound is likely to lead to development of a herbicide formulation.

Effects of Dietary n-3 Fatty Acids on Hypertension and Lipid Metabolism. Hypertension plays a major role in cardiovascular morbidity and mortality in the United States affecting 60 million Americans. It costs American people and government almost $15 billion a year. Dietary intervention gives an early therapeutic option to the American public in the primary prevention of hypertension. A Lincoln University (Missouri) study was conducted to evaluate the beneficial effects of dietary n-3 fatty acids on hypertension. Feeding diets containing n-3 fatty acids at 15% of the dietary energy level, which were obtained from canola oils and fish oils, were effective in reducing systolic blood pressure in salt-induced and spontaneously hypertension rats. This attenuation of hypertension by dietary n-3 fatty acid in both hypertension animal models was mediated through reduction in the activity of sympathetic nervous system.

## ANIMAL HEALTH AND DISEASE RESEARCH

The Animal Health and Disease Research (Section 1433, Public Law 95-113, as amended) formula program is dedicated to improving the health and productivity of animals and the welfare of producers and consumers of animal products; protecting human health through control of animal diseases transmissible to humans; minimizing livestock and poultry losses due to transportation and handling; and facilitating the effective treatment and prevention of animal diseases.

The following is a description of current activities and selected examples of accomplishments supported under this appropriation item.

### CURRENT ACTIVITIES

Funds for this program have been appropriated since FY 1979. Institutions receiving FY 1993 funds include 38 State Agricultural Experiment Stations and 17 Colleges of Veterinary Medicine qualifying individually. Additionally, at 13 other universities the Station and Veterinary College qualified as combined institutions. Legislative amendments contained in Public Law 97-98, provide that an "eligible institution" for Animal Health and Disease Research funds "means an accredited school or college of veterinary medicine or a State Agricultural Experiment Station that conducts animal health and disease research."

Recommendations of the Animal Health Science Research Advisory Board are being followed in program implementation (i.e., scope and priorities of eligible research, determination of research capacity of eligible institutions and other questions on program administration). In accordance with advice from the Board, emphasis in this research centers on the solution of high priority diseases or other animal hazards in the production of livestock, poultry, and aquaculture species.

State Comprehensive Plans for animal health research, approved by CSRS, are being followed by the eligible institutions within each State. These plans include the major areas of animal health research to be conducted by the institutions. Provisions of Section 1433 permit selection of studies within each State based on highest priority needs and capabilities of the institutions to conduct the needed research.

## SELECTED EXAMPLES OF RECENT PROGRESS

Constructed a Linkage Map of the Bovine Genome. Scientists at the University of Illinois, the University of Wisconsin, and Texas A&M University have contributed to the construction of the first linkage map of the bovine genome. The map will be a primary tool in the identification of gene markers for disease resistance in cattle. The results from this research have linked DNA gene markers for "Weaver" disease in Brown Swiss Cattle and polled (hornless) characteristics in Bos taurus cattle.

Developed a Molecular Genetic Test for Porcine Stress Syndrome. Scientists at the University of Minnesota, College of Veterinary Medicine have determined the genetic basis for porcine stress syndrome (PSS). Based on these research results, a molecular genetics test for identifying normal and mutant alleles of the PSS gene has been developed. The test provides, for the first time, the ability to identify previously unidentifiable heterozygote animals. Studies using the technique to identify PSS animals within swine herds indicate that most herds in the United States carry the gene. Breeding programs to eliminate PSS from swine herds is now feasible.

Identified Causes for Porcine Reproductive and Respiratory Syndrome. The causative agent of mystery swine disease has been identified and characterized by scientists at South Dakota State University and the University of Minnesota. The disease affects 40 percent of herds in the Midwest and causes abortions, stillbirths, weak pigs, pneumonia and immunosuppression. Identifying the viral causative agent will enable the development of diagnostic techniques, control programs and vaccines to combat this disease problem.

Inherited Disorders in Dairy Cattle. Genetic defects result in severe economic losses in livestock production. Thus, it is very important to identify deleterious genes and eliminate them from the population whenever possible. It is particularly important that dairy bulls selected for use in artificial insemination companies be free of known genetic defects. Research at the Illinois Agricultural Experiment Station has identified two important genetic defects in dairy cattle, deficiency of uridine monophosphate synthetase (DUMPS) and bovine leukocyte adhesion deficiency (BLAD). Both are caused by an autosomal recessive gene. Laboratory tests have been developed that can accurately identify heterozygous "carrier" individuals. Application of this information by dairy cattle breeders will virtually eliminate these defective genes from dairy cattle.

Mastitis Control in Dairy Heifers. The prophylactic treatment of bred heifers with intramammary antibiotic therapies prior to their first lactation is an efficacious method of reducing udder infections during their first lactation. Traditionally, the mammary glands of non-parous heifers have been regarded as uninfected, but recent investigations have demonstrated that these animals are subject to infections during late gestation, especially with Staphylococcus aureus. Studies at Tennessee and Louisiana have demonstrated that these infections of mastitis-causing pathogens can be eliminated by antibiotic therapies in late gestation. In addition, treated quarters are free of antibiotic residues at freshening, and remain relatively infection free and have lower somatic cell counts during the subsequent lactation. Thus, dairymen benefit from reduced mastitis and more efficient milk production, while consumers benefit from higher quality dairy products.

## 1890 INSTITUTION CAPACITY BUILDING GRANTS
## (FEDERAL ADMINISTRATION - DIRECT APPROPRIATION)

### CURRENT ACTIVITIES

The 1890 Institution Capacity Building Grants Program, begun in FY 1990, serves as the crux of the Department of Agriculture's high priority initiative to advance the teaching and research capacity of the 1890 Land-Grant Institutions and Tuskegee University. It reflects USDA's commitment to encouraging more minorities to prepare for careers as food and agricultural scientists and professionals. The program is competitive in nature and provides support for teaching and research projects in targeted high priority areas. Matching support from non-Federal sources has been encouraged and the 1890 institutions have demonstrated an ability to attract matching funds. The program also requires cooperation with one or more USDA agencies in developing a proposal and carrying out a project thereby strengthening departmental partnerships and linkages with these important historically black institutions.

### SELECTED EXAMPLES OF RECENT PROGRESS

In FY 1993, $10.25 million were appropriated for the Capacity Building Grants Program. Of this amount, approximately $5.0 million were allocated to support teaching projects and about $4.9 million were allocated to research projects. Targeted need areas for teaching projects included curricula design and materials development, faculty preparation and enhancement, instruction delivery systems, student experiential learning, instrumentation for teaching, and student recruitment and retention within the fields of agriculture, natural resources, forestry, veterinary medicine, home economics, and closely allied disciplines. Research areas included studies and experimentation in the food and agricultural sciences, establishment of centralized research support systems, and development of improved technology delivery systems for producers and consumers concerned with the food and agricultural system.

In FY 1993, 49 grants were awarded competitively. The following reflects the number of proposals submitted and grants awarded.

| | Proposals Submitted | | Grants Awarded | |
|---|---|---|---|---|
| | Proposals Received | Dollars Requested | Grants Awarded | Dollars Awarded |
| Research Grants | 110 | $30,634,759 | 22 | $4,893,421 |
| Teaching Grants | 54 | 10,975,250 | 27 | 4,971,250 |
| TOTAL | 164 | 41,610,009 | 49 | 9,864,671 |

With the support of the Capacity Building Program, the University of Arkansas, Pine Bluff will enhance its library resources in conjunction with the development of a bachelor's degree program in Regulatory Science. A collaborative project between Tuskegee University, Cook College (Rutgers University) and private industry will develop an innovative program to strengthen training in chemistry for students majoring in the food and agricultural sciences. Aquaculture research is underway at Kentucky State University to examine alternative production technologies that will have mutual benefits to the university and the rural community while minimizing environmental impact. Alabama A&M University is conducting research in the area of plant biotechnology to investigate, at the molecular level, the basis of tolerance to aluminum stress in soybean (Glycine max L.) and develop genetic resistance to aluminum toxicity which would be a valuable contribution

to agriculture. These are just a few examples of how the program is advancing the quality of teaching and research at the 1890 Institutions.

## SPECIAL RESEARCH GRANTS

The Special Research Grants program concentrates on problems of national and local interest beyond the normal emphasis in the formula programs. The objectives of this program are to facilitate or expand promising breakthroughs in areas of food and agricultural sciences of importance to the Nation and to facilitate or expand ongoing State-Federal food and agricultural research programs.

Following is a description of current activities and selected examples of accomplishments supported under this appropriation item.

### CURRENT ACTIVITIES

In FY 1994 under the Special Research Grants program, grants will be awarded to the headquarters and four regional leader laboratories (New York, Michigan, Florida, and California) to continue the pesticide clearance and minor use animal drugs research programs. Regional/National impact grants will also be awarded in a number of other areas including water quality, global change, integrated pest management, pesticide impact assessment, energy biomass/biofuels, and the National Biological Impact Assessment Program.

In FY 1993, selected Special Research Grants were awarded competitively. Listed below are details on the number of proposals submitted and grants awarded.

| Specific Area of Inquiry | Number of Proposals Submitted | Amount Requested | Number of Grants/ Agreements Awarded | Amount of Awards |
|---|---|---|---|---|
| P.L. 89-106: | | | | |
| Aquaculture | 15 | $2,152,087 | 3 | $298,356 |
| Integrated Pest Management | 68 | 5,649,379 | 66 | 4,208,133 |
| Water Quality | 239 | 32,732,295 | 81 | 8,369,880 |
| P.L. 97-98: | | | | |
| Rangeland | 32 | 2,360,165 | 6 | 452,869 |

### SELECTED EXAMPLES OF RECENT PROGRESS

Global Change. The UV-B monitoring network has advanced beyond developing criteria for sites at which monitoring instruments will be located. Letters of solicitation were sent to a wide variety of potential cooperating organizations. Responses received have been reviewed by a site selection committee and visits to the most promising sites are being conducted to determine suitability. Several broadband instruments have been purchased and tested to serve in the interim period until the research caliber instruments are available. The research instruments being developed are expected to begin being delivered in early 1994. Early comparison of these instruments with others of high quality indicated the new instrument is indeed superior. Colorado State University is managing this network for USDA, starting with three sites in cooperation with the Department of Energy Quantitative Links Network sites in Illinois, Maine, and Ohio. Cooperative ties have been established with proposed monitoring networks to be established by the Environmental Protection Agency, and with the existing National Science Foundation and Canadian networks.

Water Quality. Agricultural scientists at the University of Arkansas and Texas A&M University examined the impact of surface-applied poultry litter on water quality. They found that applying the poultry litter at the recommended "Best Management Practice" rate resulted in no contamination of groundwater. They also found that incorporation of poultry manure into the soil and spreading it when there was a low probability of rainfall reduced nitrate, bacteria and carbon loading of surface runoff water. However, these same practices had limited effect on reducing runoff phosphorus concentrations, and could contribute to surface water eutrophication. Also, this study showed that the insecticide Cyromazine has a high potential to be transported in runoff, when land applied, but could be dramatically reduced if allowed to dry after application. Thus, current recommended "Best Management Practices" for applying poultry litter to land can protect groundwater quality, but additional practices are needed to prevent contamination of runoff. This research has shown that poultry growers benefit from the use of "Best Management Practices" that make efficient use of poultry manure as a fertilizer while protecting water quality.

Scientists at Mississippi State University, the University of Tennessee, and the USDA Agricultural Research Service at Ames, Iowa are studying the impact of cotton irrigation on the movement, persistence and carryover of herbicides in soils. Their studies with various rates of the herbicide fluometuron under different levels of sprinkler irrigation have shown little or no downward movement of fluometuron through the soil profile, and that degradation of the herbicide was more rapid under high levels of irrigation, especially in a silt loam soil. This research has resulted in development of a new rapid and sensitive method which will greatly reduce the time required to detect fluometuron in soil.

The Iowa Management System Evaluation Area includes evaluation of alternative farming practices. If alternative production practices are to be adopted by farmers, without government intervention, they must offer comparable rates of return to current practices. Two alternative practices are being evaluated as part of a pilot project-- vegetative filter strips (VFS) and ridge tillage. The VFS practice requires little change in management or machinery, but income from the strip is lost. Ridge tillage requires significant changes in machinery, management and production skills. Most of the research to date has focused on the VFS practice. Findings to date show that VFS offers a cost effective means of reducing sediment delivery to surface waters. The efficacy of the VFS practice varies widely within and across watersheds. For example, annual costs to reduce sediment delivery ranged from $1/ton to $100/ton within a 1,000 acre watershed. The private costs of the VFS practice is strongly influenced by federal farm program provisions, especially income supports and set-aside requirements. Economic evaluation of farming practices to maintain or improve water quality is important to farmers, community leaders, planners and researchers. Evaluation plays a critical role in technology development, technology transfer and public policy.

Pesticide Impact Assessment. The CSRS component of the USDA's National Agricultural Pesticide Impact Assessment Program (NAPIAP) funds a wide range of research in each state. In the assessment process, one of the areas where good data is always lacking is the area of benefits of pesticides to the system being studied. EPA has had great difficulty when attempting to determine pesticide benefits because of the lack of uniformity of methods across the many data sets they must analyze.

One significant accomplishment is a comprehensive tomato-disease database being developed by CSRS utilizing the expertise of scientists in the State Agricultural Experiment Stations. This database offers the opportunity to address nearly any type of production question that could be asked regarding tomatoes and fungicides. Additionally, new data that will be added as a result of NAPIAP funding provides the opportunity for more refined analyses.

These data provide quantitative, scientifically-sound measures of tomato quality and yield under defined management programs. Further, this project will serve as a model for future crop/pest management strategies for which quantitative measures of benefits are needed.

Tomatoes and fungicides were selected as a model system because of the crop value and because fungicides are an integral part of commercial tomato production. A working group consisting of one tomato-disease scientist from each region, plus an agricultural economist, was convened to identify specific disease problems that could be addressed and to develop protocols for conducting the research. The agricultural economist was included to assure data would be suitable for economic analysis. EPA and USDA scientists serve as ad hoc members of a working group to maintain the database.

National Biological Impact Assessment Program (NBIAP). The National Biological Impact Assessment Program of the Cooperative State Research Service, has released a database of environmental assessments for field tests of genetically engineered plants and micro-organisms. The database is being distributed as a compact disc-read only memory (CD-ROM) to interested users to facilitate the evaluation of safety decisions made through the USDA's permit process under the Federal Plant Pest Act. The Environmental Assessments contained in the database are indexed and cross-inventoried so that specialized software can quickly retrieve information from the volumes of text contained on the CD-ROM. The purpose of distributing this information is to assist scientists in learning from past experiences when designing safe experiments with genetically modified organisms, and to provide easy access to those outside the government decision-making process with information used in making those decisions. This program is operated by Virginia Polytechnic Institute and State University.

Aquaculture. Scientists at Oregon State University have developed an effective delivery system for oral vaccines used in the immunization of trout and salmon. The research was based on the development of enteric-protected vaccines that essentially protect the vaccine from digestion in the stomach, but allow absorption of the vaccine in the intestine of fish. Using this innovative delivery system, researchers have been able to induce serum antibody responses and have demonstrated that this is an effective mechanism for oral immunization of trout and salmon. Vaccine trials are underway using this approach for a number of important diseases in the aquaculture industry.

Tropical/Subtropical Research. Scientists at Guam have worked on the biology and control of the pumpkin beetle, a serious pest. Research has shown that pumpkin beetles prefer to deposit their eggs in soil that is not acidic and has some organic matter. As an alternate host, watermelon was not as good as pumpkin. Corn, sweet potato, and bittermellon were not alternate hosts as has been reported elsewhere. However, zucchini, honeydew and cantaloupe were good host plants. In an effort to reduce insecticide use, various plastic mulches were tried, but they were not effective. Tests with insecticides showed that cabaryl was effective in controlling pumpkin beetles. Research to see how little insecticide could be used showed that spraying one row out of every four reduced beetles by 90%.

Clearance of Pest Products. Historically there has always been a lack of pest control products available for use on minor crops. Commercial registrants traditionally seek major markets for their products and label uses that can be justified on the basis of economic returns. Interregional Research Project Number 4 (IR-4/NRSP-4) is a national program that provides assistance in establishing tolerances and registrations for both conventional and biologically-based pest control products for use on minor food and ornamental crops. The Project, which receives federal funds from USDA-CSRS and USDA-ARS, was established in 1963. It operates through a network of regional leader laboratories and state and federal liaison representatives and is coordinated

by a headquarters located at the New Jersey Agricultural Experiment Station. IR-4 is the only publicly supported research program in the United States created to register pest control products for minor uses.

IR-4 has directly supported more than 50% of the pesticide registrations on minor crops since 1970. In 1993, IR-4 sponsored research on 201 minor food use clearances. Of these, 159 were for new registrations and 42 were for reregistrations. Additionally, IR-4 data were used by commercial registrants to add 40 new ornamental species to three labeled pesticide products. IR-4 also sponsored research on additional ornamental crops. These data will be used to support 290 new registrations for pest control products on commercially grown ornamentals. IR-4 submitted petitions to EPA for two biologically based pest control products in 1993 and funded research on the biological control of dodder, a parasitic plant, utilizing a formulated product containing two species of fungi.

IR-4 plans to conduct research in 1994 on 337 food crop clearance requests involving about 850 field trials. One-third of these will be for the reregistration of currently registered products. Additional research is planned for 330 ornamental clearance requests involving 430 field trials. IR-4 will assist in developing additional toxicology data required by EPA to support a Codling Moth Granulosis Virus petition. IR-4 also will provide technical assistance for the commercial development of Pseudomonas sp for the control of post harvest fruit rots on apples and pears.

Integrated Pest Management. The regional IPM goal is to develop and implement economically sound and environmentally safe methods for managing local pest problems. Component research on specific pest biologies are being incorporated into IPM systems for managing crop pests in multiple cropping systems. Some highlights of the research and recent extension/research implementation programs follow:

In the Western Region numerous successes have been made by the State Agricultural Experiment Stations. For example, in Arizona, scientists are tracking crop jumping, flight habits, and population build-up of the sweetpotato whitefly, a pest that causes millions of dollars in crop losses in western and southern states. In Oregon, continuing research shows that reduced irrigation suppresses potato early dying. In Colorado peach trees benefiting from nematode control methods produced a crop four times larger than trees that received no pest control help. In Washington, scientists are using green manure crops to control nematodes and weeds in potato fields. In Montana, scientists are expanding their arsenal of biological control agents to control pathogens of sweet corn. A team of six researchers is increasing our knowledge of Russian wheat aphid biology and damage, and is developing a software program that will help growers identify aphids and make the right decisions about controlling them.

In the Southern Region, Louisiana scientists are studying the migration and invasion pattern of the velvetbean caterpillar. Knowing the source areas will allow low population densities to be controlled with biological pesticides. Scientists from Virginia, Georgia and Texas are combining pheromones with mechanical control to hold the Southern Pine Beetle in check. This pest has caused hundreds of millions of dollars of damage to timber and pulpwood each year. In Virginia and North Carolina, scientists have used predators and parasites to control up to 95% of the filth flies in poultry houses. In Arkansas and Missouri, scientists are searching for a strain of an endophyte that would retain its ability to give drought and pest resistance to tall fescue, but would not produce the toxin (which impedes cattle growth) usually associated with the endophyte. In Kentucky, scientists are developing methods to spread a virus that infects corn earworms. This pest attacks corn, soybeans, cotton, and vegetables resulting in substantial losses each year.

In the North Central Region, Kansas scientists are studying methods to control field bindweed (a serious pest of wheat, corn, and soybeans) with the use of a moth introduced from the Mediterranean. In Ohio and Wisconsin, scientists are developing methods of controlling the Colorado Potato Beetle by increasing overwintering mortality, minimizing dispersal rates, and identifying crop barriers to the beetle. In Iowa, research and extension scientists are implementing a strawberry pest management program using a nonpathogenic fungus to control another fungus, corn gluten meal to control weeds, and parasitic wasps to control a variety of insect pests. In Wisconsin, research and extension scientists from several disciplines are implementing a Potato Crop Management program which includes rotation schedules, nutrient management, disease management, irrigation schedules, and insect and weed control information.

In the Northeast Region, Maine scientists are studying crop rotation, tillage methods, and insects that eat weed seeds as possible non-chemical methods to inhibit weed growth in potatoes. In New York and Pennsylvania, scientists are developing methods to control several insect pests of alfalfa by the use of nematodes that attack these insects, but do not damage crops. In Maryland, scientists are developing an alfalfa-oat intercrop system to reduce the impact of leafhoppers and weeds. In Vermont, scientists are developing crop management systems to overcome the combined effects of insect damage, disease, and stress from cold temperatures in alfalfa. In New York, parasites are being proposed as an alternative to chemical control of leafhoppers on grapes in a system that utilizes pheromones for the management of grape berry moth.

Supplemental and Alternative Crops. The guayule program has two major components: breeding/genetics and product/market development. In genetics, natural rubber yield has been doubled over the past decade, reaching 8 to 10 percent of the plant biomass. In product/market development, truck tires manufactured by Bridgestone/Firestone are undergoing endurance testing at the U.S. Army Yuma Proving Ground, Yuma, Arizona, and tires for the Navy A/F-18 aircraft are under development by Goodyear. An intensive project is underway mainly at the University of Southern Mississippi and the University of Arizona to identify, characterize, and purify bioactive guayule resin compounds which show significant activity as antifoulants (barnacles) and termaticides.

The High Erucic Acid Development Effort (HEADE) achieved a major milestone in 1993 as the 60,000 acres of crambe production in North Dakota plus industrial rapeseed production mainly in Idaho are displacing a significant portion of industrial rapeseed oil imports from Europe. The program now intensifies product development and market expansion projects to make agricultural production of both crops demand driven by domestic and international manufacturing needs. Rapid progress is most evident by HEADE cooperators' funding product/market development projects through the USDA Alternative Agricultural Research and Commercialization Center and through the Advanced Materials from Renewable Resources program, a joint program between the USDA Office of Agricultural Materials and the Department of Defense, U.S. Army Natick Research, Development and Engineering Center, Natick, Massachusetts. Agronomic work continues to improve reliability of supply and yields by addressing winter kill and pest problems and fitting crambe and rapeseed into profitable and sustainable rotations.

Sustainable Agriculture Research and Education (SARE). The SARE program awards research and education grants through four regional administrative councils with farmer and rancher, non-profit organization, agribusiness, government, and academia representation. From FY 1988 through FY 1992, the program received over 2,000 proposals requesting approximately $215 million. During this period, a total of 234 regional projects were funded at $25.3 million, including 45 projects funded in FY 1991 and 1992 through the companion Agriculture in Concert with the Environment (ACE) program with the U. S. Environmental Protection Agency (EPA). Both programs give the highest

priority to integrated system projects which deal with whole-farm system analysis. In addition to meaningful farmer or rancher involvements, most projects have both research and education components.

The National Sustainable Agricultural Advisory Council (NSAAC) was established in 1993 by the Secretary of Agriculture to provide guidance on multiple aspects of sustainability across all USDA agencies. The SARE program, on behalf of the USDA-Cooperative State Research Service, provides the administrative link between NSAAC and the Secretary. The first meeting of the Council was held in the summer of 1993.

In the Northeast Region SARE, New Jersey scientists found that farmers can reduce nitrogen fertilizer rates by an average of 50 pounds per acre by adopting a new soil test for nitrogen, while still maintaining crop yields. This could translate to a $41 million per year savings and application of 137 million pounds less nitrogen fertilizer in the Mid-Atlantic area. Massachusetts and Vermont led an effort to strengthen collaboration among more than 60 farmers and agricultural professionals from eight Northeast states to overcome barriers to sustainable production and marketing. Participating growers then share their knowledge with others. Crop rotations that control dagger nematodes and soil-borne diseases in tree fruit and eliminate current soil fumigation practices have been identified by Pennsylvania and West Virginia scientists.

In the Southern Region SARE, Texas researchers studying conventional and sustainable livestock and crops systems have shown that low-input corn production systems can produce yields comparable to conventional production with 75% less herbicides, 50 to 75% less nitrogen fertilizer, and 75% less insecticides. Use of winter legumes to encourage beneficial insect predators and parasites for pest control, and to supply nitrogen as a green manure in pecan orchards have been evaluated in Oklahoma and Georgia. This system can reduce insecticide applications by 2/3 and eliminate commercial fertilizer nitrogen applications. Cover crops have also been found to enhance biological control of pests in vegetable crops and reduce soil erosion in Pennsylvania, Oklahoma, Arkansas, and Alabama. CROPS, the Crop Rotation Planning System for Whole-Farm Environmental and Economic Planning, is being developed in Virginia, and when completed, will be available to farmers to analyze economic and environmental consequences of farm operating decisions. The Southern Region SARE also sponsored a Forum on Sustainable Agriculture to discuss program improvements with other organizations including the National Pork Producer's Council, Southern Sustainable Agriculture Working Group, National Cattleman's Association, American Forestry Council, and the Farm Bureau Federation.

In the Northcentral Region SARE, Michigan and Pennsylvania found that chickens could be used to reduce vegetation in apple orchards as efficiently as herbicides and to reduce harmful insect populations while providing a secondary income. Net economic return on crops for no-chemical dairy products was 56% more per acre than conventional counterparts in Minnesota and Wisconsin. In Iowa, bankers, local business people, producers, and local government representatives are conducting on-farm research and hosting local programs to educate producers on the best options for cropping and grazing Conservation Reserve Program (CRP) acreage when it is returned to production. Also in the Northcentral Region, producer grants were awarded to help farmers and ranchers identify problems and find solutions to problems they encounter in implementing sustainable agriculture. Topics of this future research effort include rotational grazing, sugarbeet production, biological weed control, and equipment modification.

In the Western Region SARE, farm improvement clubs disseminated information about sustainable agriculture and built a sense of community in rural areas of Montana. California farmers provided management guidance to scientists

studying tomato production systems and found that organically managed soils suppressed major root diseases and maintained tomato yields. Sheep were used successfully in orchard floor management to replace pesticides and fossil fuels, reduce compaction and increase water penetration in Washington. Similar results were found in Hawaiian macadamia orchards and in a geese-weeder project in Alaska. Utah, Oregon, Montana, and Washington found that winter wheat leaf spot disease could be reduced if no nitrogen fertilizer were applied. The disease can be further minimized by using a wheat/pea rotation as compared to wheat/fallow and continuous winter wheat. Studies in Montana and Wyoming have shown that use of hay and green manure in rotations can stabilize income and create a new market for up to 150,000 tons of seed.

Aquaculture Centers. At the Northeastern Regional Aquaculture Center (NRAC), scientists and extension specialists from Massachusetts, Maine, Rhode Island, New York and Maryland have worked together developing semi-moist diets for feeding to Atlantic salmon using dogfish processing wastes. Preliminary results indicate ingestion, growth and conversion rates using acidified dogfish hydrolysates are comparable to commercially available control diets. Although these results represent work performed in a small-scale research setting, they are sufficiently promising that the investigators are now working toward development of commercial scale field trials of the prototype diets. Dogfish waste is a byproduct of the processing of dogfish and a disposal problem for processors. Presently, the waste is hauled to burial sites at a significant cost. The possibility of including the wastes in aquaculture feeds would result in significantly lower cost diets for the commercial salmon aquaculture industry.

At the North Central Regional Aquaculture Center (NCRAC), scientists from Illinois, Iowa, Michigan, Minnesota, Nebraska and Wisconsin, have been working on reducing constraints to walleye aquaculture. Walleye are a highly desired sport and food fish in the North Central region. Scientists have been able to manipulate the reproductive cycle and can now induce out-of-season spawning in captive walleye brood stock. They have also developed husbandry practices to alleviate noninflation of the gas bladder, a major limiting factor in the successful production of walleye fingerlings grown under intensive culture conditions.

A collaborative project supported by NCRAC scientists from Illinois and Michigan has resulted in the production of triploid sunfish. These fish, which should be functionally sterile, should not divert energy to reproductive products, thus reducing the required energy input (i.e., feeds) by the fish farmer for maintenance and growth. This should translate into significant savings to the aquaculturist since feed costs are typically 50% of a farm's variable production costs.

At the Southern Regional Aquaculture Center (SRAC), there were several developments in 1993. An Aquaculture Safety Forum was held February 2-4, 1993, bringing together approximately 45 scientists from 11 states and others interested in food safety issues and to assess relevant data available on the safety of aquacultured foods. Two products came from the Forum: (1) a 157-page published Proceedings of the Aquaculture Products Safety Forum of all formal presentations and written transcription of the working groups, and (2) a 60-minute live, interactive satellite video-conference which was broadcast nationwide and highlighted the objectives and recommendations developed by the fishery product professionals who participated in the Forum. A review of industry and government sources was undertaken to assess the food safety of Southern aquacultured products and showed that cultured fish represent the safest source of muscle protein and related nutrients among all muscle foods produced in the United States.

SRAC scientists from Louisiana, Alabama, South Carolina, Tennessee, Mississippi and Georgia demonstrated that a turbine pump has potential as an alternative to the standard lift net for loading catfish. The pump loads

catfish much faster and may be an effective device for loading market-size catfish to be sent to processing plants or pay-lakes, or for fingerling catfish to be restocked for grow-out. The turbine pump does not have any adverse physiological effects on the catfish, and physical damage is insignificant. A water displacement method, which minimizes physical and physiological stress on fish in weight determination, was demonstrated to be an accurate and effective method for determining the weight of large amounts of catfish loaded into hauling tanks. Crawfish harvesting research has determined that a rotational trapping system, in which only a portion of the pond is trapped weekly, may have potential in reducing trapping efforts and expenses with little to no decrease in yield from conventional 5-day or 3-day per week harvesting.

Approximately 150 research publications and extension fact sheets, and ten videos have been completed from SRAC regional projects. All 50 states and at least 5 territories have access to these publications, and it is estimated that over 100,000 users receive fact sheets and/or videos annually.

At the Western Regional Aquaculture Center, scientists from California, Idaho, Oregon and Washington have developed and tested a successful vaccine against the IHN virus, which affects commercial trout and salmon stocks. The disease has been identified as the most important biological constraint to the profitability and continued growth of the commercial coldwater aquaculture industry in the western U.S. Losses to the virus cost farmers millions of dollars per year. The vaccine has been commercially licensed and large-scale field trials are underway. In addition, commercial interest has been expressed in several other products from this project, including the monoclonal antibodies, DNA probe, and primer set for the polymerase chain reaction. These are powerful tools that will improve the speed and precision of IHN virus detection and will be of enormous assistance in improving our understanding of the virus carrier state and providing important information about the antigenic and biochemical variation among strains of IHN virus.

The rapid growth of the aquaculture industry is also creating the need for alternate protein sources of consistent high quality for practical feed formulations. The Western Region's investigators in Idaho, California, Montana, and Washington, have demonstrated that wheat gluten can replace more than half of the fish meal in commercial salmon and trout feeds, which will stimulate the wheat industry to expand production of low-cost, animal grade wheat gluten. Additionally, the positive results obtained by use of rapeseed protein concentrate in place of fish meal in salmon and trout feeds is expected to encourage commercial production of rapeseed protein concentrate in North America.

At the Tropical and Subtropical Regional Aquaculture Center, scientists from Hawaii, Arizona, and New Jersey have secured FDA approval for the use of formalin to treat juvenile shrimp affected by protozoan disease. Three years of technology development by scientists and extension agents from the Federated States of Micronesia (Pohnpei and Kosrae) led to the startup of four new commercial bath sponge farms in Micronesia.

## HIGHER EDUCATION

In FY 1993 the Department conducted three higher education programs and started development of a new program to begin in FY 1994. The USDA National Needs Graduate Fellowships Grants Program awarded grants to colleges and universities to stimulate the development of food and agricultural scientific expertise in targeted national needs areas. The Competitive Institution Challenge Grants Program, open to all colleges and universities, provided funding to stimulate and enable colleges and universities to provide the quality of education necessary to produce graduates capable of strengthening the Nation's food and agricultural scientific and professional work force.

The Morrill-Nelson Permanent Appropriation provided approximately $50,000 to every State and territory to advance the quality of teaching programs in the food and agricultural sciences at land-grant universities. The Higher Education Multicultural Scholars Program is being designed to attract and educate more minorities for careers in agriscience and agribusiness in order to increase the ethnic and cultural diversity of the food and agricultural scientific and professional work force and advance the educational achievement of minority Americans.

## CURRENT ACTIVITIES

In FY 1993, funds were appropriated to support 63 new doctoral fellows through the USDA National Needs Graduate Fellowships Grants Program. This is the only Federal program targeted specifically to the recruitment and training of predoctoral students for critical food and agricultural scientific positions. It represents a national investment strategy to attract diverse and talented U. S. students to pursue advanced degrees in the food and agricultural sciences. Master's enrollments in the agricultural sciences decreased steadily through the 1980's and appear to have stabilized at just above 10,000. Although fairly stable, doctoral enrollments in the agricultural sciences remain at approximately 10,000. Further, projections on the availability of expertise in the food and agricultural sciences suggest shortfalls in several employment categories.

Fiscal year 1993 was the third year funds were available for the Competitive Institution Challenge Grants Program. Supported projects address regional, national, or international higher education issues; involve creative and novel approaches to teaching that can serve as models; and foster partnership initiatives across the university science and education community, as well as between universities and the private sector. The program requires dollar-for-dollar nonfederal matching funds.

Legislative authority for the administration of funds appropriated pursuant to Morrill-Nelson legislation was transferred to the U. S. Department of Agriculture and targeted to the food and agricultural sciences by the Food and Agriculture Act of 1981. The program was formerly administered by the Department of Education and is considered a permanent appropriation.

In preparing to launch the Higher Education Multicultural Scholars Program, the Department interacted with colleges and universities across the Nation and received strong support for the program. Guidelines for operating the program are well underway and formal regulations are being developed. This department-wide initiative will be open to all U.S. colleges and universities with baccalaureate and higher degree programs in agriculture, natural resources, forestry, veterinary medicine, home economics and closely allied disciplines. The program will provide competitive undergraduate scholarships grants to eligible institutions to attract, educate and graduate outstanding minority students.

## SELECTED EXAMPLES OF RECENT PROGRESS

### National Needs Graduate Fellowships Grants

Approximately $3.4 million were available in fiscal year 1993 to fund the National Needs Graduate Fellowships Grants Program. New grants were awarded to colleges and universities to support 63 new doctoral fellows in three targeted national needs areas (Biotechnology--Plant; Engineering--Food, Forest, Biological,and Agricultural; and Water Science).

The new doctoral fellows supported via FY 1993 grants are presently being recruited and can thus be expected to graduate mid to late 1998. The recruitment and training of outstanding doctoral scientists requires

considerable time. This fellowship program helps to minimize these lengthy time requirements by readily attracting academically outstanding students and by enabling them to pursue full-time graduate studies and complete their degree programs as quickly as possible.

### Competitive Institution Challenge Grants Program

In FY 1993, approximately $1.4 million were available under the Competitive Institution Challenge Grants Program to support projects which addressed the undergraduate level of study in the following targeted need areas: (1) curricula design and materials development; (2) faculty preparation and enhancement for teaching; (3) instruction delivery systems; and (4) student experiential learning. A total of 61 different institutions submitted 110 proposals for funding consideration. Funds were available to support a total of 23 grants based on peer review deliberations. The 23 grants were awarded to 18 institutions in 17 states. Some projects supported in FY 1993 will develop interactive, computer-based instruction modules in areas such as veterinary anatomy, animal science, and woody plant identification. Other projects will develop opportunities for students and faculty to gain valuable experiences in international agriculture. Diversity issues will be addressed by the program through projects to encourage minority participation in the food and agricultural sciences and projects to enhance the awareness of faculty and students toward diversity issues. Other projects address the decision case study approach to teaching, agricultural ethics for faculty and students, a computer simulation for food processing management, interdisciplinary team teaching to promote global agricultural sustainability, and an electronic textbook in plant pathology.

### Morrill-Nelson

The latest data available denotes use of Morrill-Nelson funds for faculty salaries, teaching equipment, program development and other operating expenses. Administrative units having access to and reporting use of the monies to strengthen higher education in the food and agricultural sciences include agriculture, home economics, forestry, and veterinary medicine.

### Higher Education Multicultural Scholars Program

Congress has appropriated $1.0 million for FY 1994 for the Higher Education Multicultural Scholars Program. This will provide support for the recruitment and four years of education for approximately 40 minority undergraduate students. Stipends for the scholars will cover 75 percent of the students' cost of attendance including tuition, fees, room and board, books and other educational expenses. The remaining 25 percent will be paid by the college or university. Institutions will also receive a $1,000 annual cost-of-education allowance for each scholar supported by the program.

## NATIONAL RESEARCH INITIATIVE COMPETITIVE GRANTS PROGRAM

The original Competitive Research Grants program was initiated by the Department in 1978 to fund basic research in selected high priority areas related to plant production and human nutrition. Basic research initiatives implemented in 1985 encompassed broader research perspectives in plant and animal science and biotechnology. Competitive research grants have complemented the on-going research efforts of the USDA and the traditional agricultural research arena by encouraging the participation of outstanding research scientists throughout the entire U. S. scientific community who have expertise in these areas.

In FY 1991, the Competitive Research Grants Program was expanded into the National Research Initiative (NRI). Research areas were added in natural resources and the environment; plant systems; animal systems; and nutrition,

food quality and health. In FY 1992, two new areas of processing antecedent to adding value to new products and markets, trade and rural development were added to the National Research Initiative. The following is a description of current activities and selected examples of accomplishments supported under this appropriation item.

## CURRENT ACTIVITIES

The NRI target areas were identified as those with a high potential for scientific discoveries that will contribute to vitally needed solutions of important agricultural problems. Target areas in natural resources and the environment include water quality, plant responses to the environment, forest/rangeland/crop ecosystems, and improved utilization of wood and wood fiber. The target areas in nutrition, food quality and health address the research area of human nutrient requirements for optimal health and food safety. There are four target areas in animal systems research: reproductive biology, cellular growth and developmental biology, animal molecular genetics and gene mapping, and mechanisms of animal disease. In plant systems the target areas encompass: plant-pest interactions (e.g., pathogens, weeds, insects and nematodes), plant genome, genetic mechanisms and molecular biology, photosynthesis and respiration, and nitrogen fixation/metabolism. Research on alcohol fuels is also supported. The markets, trade, and rural development program area supports research on market assessments, competitiveness and technology and sustainability as well as understanding forces affecting rural areas and designing new approaches to rural development. In the processing for adding value or developing new products area, research is supported on enhancing value and use of agricultural and forest products and on food and non-food characterization/process/product.

The National Research Initiative Competitive Grants Program received 2,893 research proposals in FY 1993 requesting $576 million for support of research in the targeted areas. From those proposals 790 grants were awarded totaling $91.8 million. Table 6 provides details on the number of proposals submitted, the number of grants awarded, and the major categories of grant organizations. Table 7 lists recipients of competitive research grants and the dollars received.

## SELECTED EXAMPLES OF RECENT PROGRESS

### PLANT SYSTEMS

Global Change. The depletion of the stratospheric ozone layer will likely lead to appreciable increases in the amount of ultraviolet-B (UV-B) radiation reaching the earth's surface. Plants may be particularly predisposed to enhanced UV-B damage because leaves are usually positioned to intercept large amounts of solar radiation; it is known that UV-B is deleterious to certain photosynthetic reactions and to nucleic acids, the genetic material of cells.

A scientist at West Virginia University has used a fiber-optic microprobe to determine the amount of UV-B radiation which penetrates leaves of diverse types of plants ranging from evergreens to herbaceous plants to grasses. While the outer epidermal layer of evergreen leaves absorbed essentially all the UV-B before it reached the inner layers of the leaf, the epidermis of many herbaceous plants allowed much of the radiation to penetrate the leaf. The observed large differences in screening ability suggests that certain plant life forms may be more predisposed than others to UV-B damage. An increased understanding of the several leaf biochemical and structural factors which appear important in determining the screening effectiveness and their changes in response to increased UV-B radiation can furnish a basis for predicting potential damage and in selecting plants capable of meeting the challenge of higher UV-B.

Entomology/Nematology. Alternative pest management practices must be sought if the goal of reducing the use of synthetic chemically-based pesticides is to be realized. Biotechnology offers a basis on which alternative pest control strategies can be developed. Investigators at Cornell University (New York) are using genetic engineering to transfer the genetic traits responsible for pest resistance from wild tomato plants to cultivated tomato varieties. The wild tomato plant successfully defends itself from insect attack by producing noxious compounds that are excreted by hairs found on the tomato leaf. Insects are unwilling to feed when this compound is present, thus protecting the plant from insect damage. Detailed studies on the biochemistry and genetics of this system have provided the basic knowledge necessary to transfer this trait to economically important tomato cultivars.

Plant Growth and Development. Corn is an important crop used primarily for animal feed and for providing a major portion of the calories and protein in human diets in many parts of the world. Much of the nutritional value of corn comes from storage proteins in the kernel. During seed germination, these proteins are broken down and used as sources of nourishment by the growing embryo. A research group in the state of North Carolina has recently isolated and characterized a protein that appears to be a key agent in protecting these storage reserves from pests and pathogens. This protein, RIP (Ribosome-Inactivating Protein), is synthesized in an inactive form during seed development. Upon seed germination, RIP is processed to an active form that modifies ribosomes of non-plant organisms (including many plant pathogens) such that their protein synthesis is shut down. Because RIP does not inactivate plant ribosomes, it holds potential as a biocontrol compound. In addition, understanding the biological activity of natural defense agents will facilitate design of efficient strategies for improvement of corn as well as other important crop plants.

Photosynthesis and Respiration. Phycobilins are an important group of plant and algal pigments that function in the collection of light energy that is used in photosynthesis. On a global scale, a large fraction of all photosynthesis is driven by light energy that is collected by phycobilin pigments. Relatively little was known about how phycobilin-containing photosynthetic organisms synthesize these pigments and how they regulate the accumulation and use of the pigments. In research supported by the Photosynthesis/Respiration Program of the NRI, investigators at Brown University (Rhode Island) have discovered how phycobilins are biosynthesized, and are now learning how organisms containing phycobilin control their phycobilin content.

Plant Pathology. Investigators at Cornell University (New York) have developed a new method to generate virus resistant crop plants. Plants transformed with viral enzyme gene sequences become resistant to the virus from which the sequences were derived. The process, termed "replicase-mediated resistance" was discovered with the model system of tobacco mosaic virus in tobacco. Its principal feature is the extreme form of resistance which develops; plants never come down with virus disease, even when inoculated with massive doses of virus. Work is now expanding to include the economically important viruses, cucumber mosaic and potato virus Y. Others have used this technique to generate potato plants resistant to potato viruses X, Y and leafroll. This process enlarges our capacity to produce virus-resistant plants and is a good molecular complement to conventional plant breeding techniques in which resistant cultivars are sought.

Plant Genome. Commercial forestry amounts to a $49 billion business in the Southeastern United States and is predominantly Loblolly pine farming and related wood product manufacturing. The genetic improvement of Loblolly pine trees has been difficult because they are not easy to breed and often require 5 to 10 years to begin reproducing pollen and seeds. To help overcome this obstacle, scientists at North Carolina State University at Raleigh, have

analyzed the DNA from Loblolly pine and have mapped about 200 genetic markers to the trees' chromosomes in only 60 days. This is currently the most extensive genetic map made of a woody plant which is a major accomplishment for a species whose map had been thought by many to be nearly impossible to delineate. Now breeders can use this information to speed greatly the development of improved loblolly pines by helping them make earlier decisions about which trees to keep so that time and space is not wasted on making crosses and observing offspring.

## ANIMAL SYSTEMS

Improving Animal Growth and Development. Efficient growth of fish is critically important in aquaculture since a major expenditure is fish feed. Understanding fish growth and optimizing fish breeding practices will lead to more economic management. Researchers at the University of Washington-Seattle have determined that insulin-like growth factor I (IGF-1), a protein hormone known to be essential in mammalian growth, is present in both juvenile and adult coho salmon. Another group of investigators at Memphis State University (Tennessee) is working with catfish. Since male catfish tend to grow faster and larger than female catfish, this group is developing monosex (all male) populations of channel catfish by selective breeding. In the first year of the study, these workers have identified 15 male fish carrying the YY genotype. At spawning, these fish will produce only male fry.

Sustaining Animal Health and Well-Being. Infections caused by Escherichia coli are the most common cause of diarrhea and death in newborn livestock animals. The economic losses per year in the United States are estimated to be in excess of $100 million. Specific bacterial surface proteins must attach to other specific proteins in the animal's intestine to cause disease. Researchers at the University of Illinois have determined that the production of one key surface protein requires at least eight different bacterial genes. Their continued study of the regulation of these proteins is leading to improved treatments. Investigators at South Dakota State University in collaboration with USDA/ARS National Animal Disease Center in Iowa are studying other proteins critical to E. coli induced diarrhea. Two different intestinal receptors were identified that are present only in pigs that are susceptible to E. coli produced disease. Researchers are now studying these receptors with the goal of developing a test to distinguish resistant and susceptible animals. Additionally, workers at the University of Washington-Seattle are studying the proteins and receptors that allow certain types of E. coli to penetrate the intestine and enter the bloodstream. Their goal is to prevent this penetration so that E. coli cannot produce blood-borne infections in animals.

## NUTRITION, FOOD QUALITY AND HEALTH

Improving Human Nutrition for Optimal Health. Investigators at the University of Minnesota have determined that dietary copper may be critical to early infant brain and cognitive development. Recent studies by these scientists demonstrated that newborn animals receiving low copper diets had both low copper levels in the brain and significant changes in brain neurotransmitter levels. The low copper levels and altered brain chemistry were not corrected when the animals were later fed diets containing adequate dietary copper. These findings support the concept that adequate levels of dietary copper, like iron, are essential for normal infant brain development and that inadequate levels can result in permanent changes in the brain.

Ensuring Food Safety. Microorganisms are known to contaminate contact surfaces used in food processing, and the dangers associated with consuming foods that are contaminated are well-documented. Naturally occurring antimicrobial proteins produced by those bacteria used to produce cheese from milk exist and are already used in some foods. Researchers at Oregon State

University are studying one of these proteins, called nisin, and are applying it to contact surfaces as a method to reduce bacterial surface contamination. Preliminary results indicate that antimicrobial activity produced by nisin is stable and is maintained even following washing of contact surfaces. If this procedure can be adapted to industrial surfaces, it could result in improved food safety.

## NATURAL RESOURCES AND ENVIRONMENT

Forest/Rangeland/Crop Ecosystems. The landscape throughout large areas of the eastern United States is a highly fragmented mix of forest and farm lands. Such fragmentation is known to affect many ecological processes, and could affect the distribution of some organisms that cause decline and mortality in forest tree species. Researchers at State University of New York-College of Environmental Science and Forestry (SUNY-CESF) are studying how characteristics of the landscape (e.g., type of land use, degree of different land use types, composition and structure of vegetation) affect the incidence and rate of spread of a mycoplasmal disease, ash yellows. Ash yellows causes decline and mortality in white ash, a valuable timber species. In central New York, stands of northern hardwood forests of various sizes and distances from agricultural fields are being examined for the mycoplasmas causing ash yellows to determine whether this disease occurs in areas where there is a greater degree of forest fragmentation. White ash trees within these stands have been permanently tagged for future determination of disease spread. The spatial relationships of infected versus non-infected stands have been geo-referenced with the aid of a geographical positioning system. Geographical information systems technology will be used to calculate landscape-level attributes for each study site and to evaluate the importance of site, stand, and landscape variables in relation to disease incidence and spread. Results of this research should lead to ecologically sound management practices for northern hardwood forests affected by ash yellows and should illustrate the importance of host-pathogen-landscape level interactions in natural forests.

Water Quality. Riparian ecosystems, the lands adjacent to streams, rivers, lakes and ponds, can be essential for removal of nonpoint source pollution before pollutants reach the water bodies. In the eastern and southern United States, these riparian ecosystems are often forested wetlands. Although mature riparian forests are known to be effective filters for nutrients and sediment from agricultural lands, scientists need better understanding of the processes of nutrient removal under managed conditions to make better recommendations on managing riparian forest buffers for water quality improvement. Researchers at USDA/ARS and University of Georgia are testing whether interim management recommendations developed by USDA for Riparian Forest Buffers are appropriate for long-term water quality protection. They have determined that a mixed pine-hardwood forest about 50 years old is effective at keeping nutrients and sediment from a corn field from reaching a stream. The merchantable timber has been harvested to within about 30 feet of the stream, and ongoing studies are examining whether this is an effective buffer while the harvested area regrows. The scientists are also looking at how nitrate is removed from shallow groundwater - whether it is removed by plant uptake, microbial uptake, or denitrification (reduction of nitrate to nitrogen gas). Results from study of the mature forest (before timber harvest) show that both denitrification and plant uptake are important to nitrate removal. Results from the management studies will be used to design more effective Riparian Forest Buffers and to refine the existing standards to increase acceptability of these ecosystems as tools for controlling nonpoint source pollution.

Plant Response to Environment. Catastrophic flooding of farm land over extensive areas of the mid-west in the summer of 1993, with destruction of millions of dollars worth of crops, highlighted the constant vulnerability of crops to excess soil water. Less spectacular but equally damaging and much

more frequent is the soil flooding that occurs on poorly draining land after heavy rain, with irrigation or with rising water tables. In all these situations, oxygen from the air fails to reach roots in the water-saturated soil, causing root death and crop failure. Researchers at Texas A & M University are studying how roots of maize adapt to flooding-induced oxygen deficiency, with the aim of discovering ways of making crops more resistant to flooding. These researchers are also identifying genes that are important in improving the survival of maize challenged with this stress. Maize plants use two strategies to cope. In the short term, they increase their rate of anaerobic (absence of oxygen) respiration (fermentation) to generate metabolic energy. In the longer term, they generate new roots that are structurally adapted with internal air channels for the easy movement of oxygen from the leaves (exposed to air) to the root, so that they continue to live. Other related research is attempting to suppress the harmful accumulation of the end product of anaerobic metabolism (lactic acid) which contributes to root death under these conditions. Additionally, by comparing the biochemistry of flood-resistant wild plants with flood-sensitive plants, it may become possible to identify and transfer beneficial genes to various crop plants to help overcome the problems of too much water.

## PROCESSING FOR VALUE ADDED

Food and Non-Food Characterization, Process and Product Research. The goal of this program, initiated in FY 1992, is to use agricultural materials more fully and effectively in food and non-food products, including products with enhanced competitive value and quality. Expanded domestic and international markets for bread wheats produced in the United States will depend upon continued improvement in their bread-making quality. A team of scientists at the University of Nebraska is using electrophoresis and digital image analysis to study the protein component of hard red winter wheats, which is the component most responsible for controlling bread-making quality. Information obtained on the effect on wheat variety and growing conditions on protein composition will provide feedback to plant breeders and farmers in selecting and growing wheat with high end-use quality.

Researchers at Louisiana State University are developing processes for extraction of cellulosic fibers from the rind of sugar cane and evaluating the properties of various textile products (yarns, fabrics, and non-woven mats) made from the extracted fibers. This new use for cane fibers in textile and geotextile applications will assist the sugar industry by increasing the value of what is currently a low-value by-product.

Research at the University of Minnesota seeks to overcome the poor processability and inferior properties of natural polymers, such as starch, which prevent their use as environmentally-friendly plastics. The approach is to blend the natural starch with small quantities of reactive synthetic polymer in a batch blender or continuous extruder. The resulting high value-added product will reduce the burden of solid waste on the environment and promote use of surplus agricultural materials.

## MARKETS, TRADE AND POLICY

The Eastern European and Former Soviet Union Beef Sectors. A market assessment study at Iowa State University indicates the region comprising the nations of Eastern Europe and the former Soviet Union will not be a major competition or market for U. S. and other beef producers and exporters in the short or medium terms. The region is enormous in size, in the midst of transitioning to a market economy, and has the potential of becoming a large beef consumer and exporter. However, a number of factors will constrain beef consumption and trade. One, poor economic conditions will cause beef consumption by these nations to decline faster than beef production, resulting in the build up of stocks. Two, exportation of this surplus and development

of export markets is all but impossible because of the presence in herds of Foot and Mouth Disease. Other factors that will limit international trade include lack of a legal and economic infrastructure, unfavorable exchange rates, and government policies that reduce the potential for profits from beef sales.

Rural Development. Research is underway at Auburn University in Alabama that will determine the effect of timber dependency in rural areas of the state and the implications of this dependency for sustaining rural development. A 3-year project funded by the National Research Initiative Competitive Grants Program is examining the impact the forest products industry has on the economic base, quality of life, and infrastructure of selected rural communities. The research will identify potential opportunities for the forest products industry to contribute towards rural revitalization in Alabama. Understanding the effects of timber dependency is vital to ensuring future well-being and improving quality of life in rural areas.

## SMALL BUSINESS INNOVATION RESEARCH PROGRAM

The Small Business Innovation Development Act (SBIR), Public Law 97-219, July 22, 1982, as amended by Public Law 99-443, October 6, 1986, was designed to strengthen the role of small, innovative firms in Federally funded research and development. Under this program small firms receive at least a fixed minimum percentage of research and development awards made by Federal agencies with sizable research and development budgets. From FY 1986 through FY 1992, 1.25 percent of an agency's extramural research budget was set aside for purposes of the SBIR Act. The Small Business Research and Development Enhancement Act of 1992 (Public Law 102-564, October 28, 1992) has amended the set-aside percent for the SBIR program as follows: 1.5 percent in fiscal years 1993 and 1994, 2.0 percent in fiscal years 1995 and 1996, and 2.5 percent in each fiscal year thereafter.

The objectives of the Small Business Innovation Research program include stimulating technological innovation in the private sector, strengthening the role of small businesses in meeting Federal research and development needs, increasing private sector commercialization of innovations derived from USDA-supported research and development efforts, and fostering and encouraging participation by minority and disadvantaged small business firms in technological innovation.

The following is a description of current activities and selected examples of accomplishments from this program.

### CURRENT ACTIVITIES

In response to the September 1, 1992, deadline announced in the Federal Register, the Department of Agriculture received 381 Phase I proposals from small businesses that had innovative approaches to solve problems in U.S. agriculture. On February 15, 1993, 35 Phase II proposals were submitted by small businesses that had previously received Phase I awards. The agency contributions were pooled and grants were made without regard to the funding source. The proposals were peer reviewed and many high quality applications were identified. With the funds available for the program 76 awards (53 Phase I awards and 23 Phase II awards) could be made. A summary for fiscal year 1993 follows:

| Program Area | Number of Proposals Received | Amount Requested | Number of Grants Awarded | Amount of Awards |
|---|---|---|---|---|
| Forest and Related Resources .... | 44 | $2,421,654 | 8 | $634,159 |
| Plant Production and Protection . | 84 | 5,092,049 | 14 | 1,369,101 |
| Animal Production and Protection. | 49 | 3,331,674 | 9 | 888,347 |
| Air, Water and Soils ..... | 48 | 3,151,124 | 7 | 642,582 |
| Food Science and Nutrition ..... | 47 | 3,249,473 | 10 | 982,630 |
| Rural and Community Development . | 51 | 3,434,723 | 11 | 1,168,771 |
| Aquaculture ..... | 56 | 3,325,907 | 10 | 825,520 |
| Industrial Applications ..... | 36 | 2,365,859 | 7 | 515,650 |
| Animal Science (Reprod. Phslgy.). | 1 | 192,932 | 0 | 0 |
| Total ..... | 416 | 26,565,395 | 76 | 7,026,760 |

## SELECTED EXAMPLES OF RECENT PROGRESS

Forests and Related Resources. Virtually all lumber must be dried prior to use. This is a very time consuming and expensive operation. The total cost of drying lumber in the United States is estimated to exceed $1 billion annually. A major problem faced by the lumber industry is drying lumber at the proper rate and to the appropriate moisture content to avoid defect formation and to maximize the cost-effectiveness of the process. What is needed is a better method to monitor the change in moisture content on a continuous basis. An Oregon company has developed a weight-based technology to monitor the moisture content of lumber in a dry kiln. Lumber is stacked on bolsters for drying in the dry kiln. By placing load cells in selected bolsters and connecting them via cables to a computer on the outside of the dry kiln, it is possible to monitor continuously the loss of weight of the lumber and thus the decrease in the moisture content. Successful implementation of this system will permit more accurate monitoring of the rate of drying and the degree of drying and thus save millions of dollars through reduced defect formation and more efficient operation of lumber drying.

Plant Production and Protection. Most aspects of growing nursery plants have been automated, but transplantation of seedlings from seed flats to larger containers continues to be done largely by manual labor. Since more than three billion plants are transplanted annually, improvements in the efficiency of the process could have a substantial impact on the nursery industry. An Indiana company has developed a robotic transplantation system capable of transplanting 10,000 seedlings per hour. The system uses machine vision to detect the seedling and robotic fingers to pick up the seedling plug and transfer it to the larger container. This system represents a large potential savings over the use of manual labor and thus could have a substantial impact on the nursery industry.

Animal Production and Protection. Swine dysentery is a very important disease that is estimated to cost swine producers in excess of $180 million annually. Confirmation of the disease is based on the detection of the causative bacteria, Treponema hyodysenteriae, from infected pigs. The currently available assay is time consuming, lacks sensitivity, and often requires an experienced technician for an accurate diagnosis. An Arizona company is working to develop an easily interpreted, rapid and sensitive diagnostic assay to detect the bacteria in fecal samples. The procedure of polymerase chain reaction (PCR) is being used to enhance the sensitivity of the assay. Successful development of a PCR-based diagnostic assay for swine dysentery will make it much easier to detect infected animals, including those that are asymptomatic, and eventually will make it possible to completely eradicate the disease from this country.

Air, Water and Soils. Pesticides continue to be of crucial importance to many agricultural production systems. In recent years the dependence upon pesticides has been decreased and new generations of pesticides have been developed that are more specific and less persistent. Nevertheless, pesticide usage leads to the contamination of water, both in terms of unused spray solution and the water used to clean empty containers, storage tanks and sprayers. What is needed is a safe, inexpensive method to destroy these pesticide wastes. A California company has developed a novel electrochemical process that is capable of completely destroying 2,4-D, dimethoate and other water soluble pesticides. The process only requires electricity and sodium carbonate (a very inexpensive, nonhazardous chemical) and produces water that can safely be discharged with no further treatment. Cost estimates indicate that the process is very inexpensive. This process will be particularly effective in destroying small volumes of pesticide-contaminated water that are produced on many farms and at other rural locations.

Food Science and Nutrition. The relationship between the density of potatoes and cooking quality has been known for a long time. Potatoes that are more dense have a higher dry matter content, possess better taste, and give higher yields of chips and french fries with lower oil consumption. Efforts to develop effective methods to sort potatoes on the basis of density have not been effective. Sorting can be achieved in liquid solution, but the problems of liquid contamination and pre- and post-washing procedures have prevented widespread use of this approach. An Idaho company is developing a dry method to sort potatoes on the basis of density by utilizing a fluidized bed medium. In this system a fluidized condition can be achieved by passing a gas through the medium. When objects such as potatoes that possess different densities are added to the system, their movement is a function of their density, making density separation quite feasible. Successful development of a fluidized bed sorter for processing potatoes will greatly help the potato industry since the cooking and processing conditions can be modified to match the particular density characteristics of the potatoes.

Rural and Community Development. Providing affordable care for the elderly is a problem throughout the country, but especially in rural areas where there are fewer facilities providing appropriate care. Adequate child care facilities are also a particular problem in small rural communities. A Vermont company has demonstrated an innovative approach to solving both problems by combining elder care and child care within one intergenerational care facility. They have shown that by combining both elder care and child care, the economics are greatly improved and there are numerous positive interactions between the children and the older people that are mutually beneficial. This study has shown that an intergenerational care facility in a non-institutional setting (e.g. a home) offers significant revenue-generating opportunities for the care providers. It also provides enhanced care for both elders and children because the interactions between the two groups prove to be mutually beneficial.

Aquaculture. Sea cucumbers are considered a delicacy in many cultures, especially those in the Far East. Within the United States there is considerable demand for them in Hawaii and on the West Coast. They are sold either dried, pickled or fresh. There is no aquaculture industry for sea cucumbers, and thus, they are collected in the wild. This has resulted in considerable overfishing of native stocks of sea cucumbers in many parts of the world. In an effort to overcome this problem, a Hawaii company is developing aquaculture procedures for the production of one of the native Hawaiian sea cucumbers, Stichopus japonicus. They have developed successful and reliable year round techniques for spawning induction and mass larval rearing, and have made good progress in developing nursery and growout procedures. The successful development of aquaculture procedures for raising S. japonicus in Hawaii will greatly increase the availability of fresh and dried sea cucumbers, will alleviate the pressure on the native populations of

S. japonicus in Hawaii, and will present important new export potential to Japan and other countries in the Far East.

Industrial Applications. In recent years the production of fuel ethanol from corn and other agricultural crops has become an important new industry. In the process of producing ethanol, a large volume of an aqueous stream known as stillage is produced. Stillage contains considerable amounts of solids, as well as important chemicals such as butanol, lactic acid, acetic acid, citric acid and glycerol. At present, centrifugation and conventional filtration are used to process the stillage for recovery of the solids and organics. A Massachusetts company is developing an alternative approach to processing stillage through crossflow microfiltration using ceramic membranes. They have developed an economical ceramic module design, which will substantially reduce the cost of the membranes, and procedures to make the membranes non-fouling. Successful development of economical, non-fouling ceramic membranes for treatment of fuel ethanol stillage will improve the economics of fuel ethanol production by producing solids for use as animal feed and specialty chemicals for use in the chemical industry.

## COOPERATIVE STATE RESEARCH SERVICE

The estimates include proposed changes in the language of this item as follows (new language underscored; deleted matter enclosed in brackets):

[Buildings and Facilities:]

[For acquisition of land, construction, repair, improvement, extension, alteration, and purchase of fixed equipment or facilities and for grants to States and other eligible recipients for such purposes, as necessary to carry out the agricultural research, extension, and teaching programs of the Department of Agriculture, where not otherwise provided, $56,874,000, to remain available until expended (7 U.S.C. 2209b).]

No funding is proposed for this program in fiscal year 1995.

COOPERATIVE STATE RESEARCH SERVICE

BUILDINGS AND FACILITIES

| | |
|---|---|
| Appropriations Act, 1994 | $56,874,000 |
| Budget Estimate, 1995 | - - |
| Decrease in Appropriations | -56,874,000 |

SUMMARY OF DECREASE

| Item of Change | 1994 Estimated | Program Change | 1995 Estimated |
|---|---|---|---|
| Buildings and Facilities | $56,874,000 | -$56,874,000 | - - |

PROJECT STATEMENT
(On basis of appropriation)

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| ALABAMA: | | | | | | | |
| Wallace State Junior College Wellness Center | (a) | | - - | | - - | - - | |
| ARIZONA: | | | | | | | |
| Agric. Research Complex-Envir. Stress Lab, University of Arizona, Tucson | $1,100,000 | | $800,000 | | -$800,000 | - - | |
| ARKANSAS: | | | | | | | |
| Agriculture Building | - - | | 1,775,000 | | -1,775,000 | | |
| Ctr. for Alter. Pest Control Research, Univ. of Arkansas | - - | | 1,000,000 | | -1,000,000 | - - | |
| Poultry Center for Excellence, Univ. of Arkansas | 3,189,000 | | - - | | - - | - - | |
| Livestock Research & Activity Complex | (a) | | - - | | - - | - - | |
| CALIFORNIA: | | | | | | | |
| Altern. Pest Control Containment and Quarantine Fac., Univ. of CA. | 385,000 | | 2,219,000 | | -2,219,000 | - - | |
| Grape Import. Facil. Univ. of CA., Davis | 2,191,000 | | - - | | - - | - - | |
| COLORADO: | | | | | | | |
| Animal Reproduction Biotechnology, Colorado State Univ. | (a) | | 340,000 | | -340,000 | - - | |
| CONNECTICUT: | | | | | | | |
| Ag Biotechnology Lab, Univ. of CT | - - | | (a) | | - - | - - | |
| DELAWARE: | | | | | | | |
| Poultry Biocontainment Laboratory | (a) | | 350,000 | | -350,000 | - - | |
| FLORIDA: | | | | | | | |
| Ag. Biotech. Inst., Univ. of Florida | - - | | 276,000 | | -276,000 | - - | |
| GEORGIA: | | | | | | | |
| Biocontainment Facil. Univ. of Georgia | - - | | 1,793,000 | | -1,793,000 | - - | |
| Ctr. for Advanced Water Technology, Savannah State College | 376,000 | | 213,000 | | -213,000 | - - | |
| Nat. Lab. for Envir. Sound Prod. Ag., Univ. of GA., Tifton | 1,293,000 | | - - | | - - | - - | |
| Vidalia Onion Storage Research Facility, Univ. of GA., Tifton | 194,000 | | - - | | - - | - - | |
| Center for Rural Health & Epidemiology, Georgia Southern University | (a) | | - - | | - - | - - | |
| HAWAII: | | | | | | | |
| Ctr. for Tropical & Subtropical Agric., Univ. of Hawaii | 3,311,000 | | - - | | - - | - - | |
| Center for Applied Aquaculture | - - | | 2,219,000 | | -2,219,000 | - - | |
| IDAHO: | | | | | | | |
| Biotech. Facility, Univ. of Idaho | 500,000 | | 1,319,000 | | -1,319,000 | - - | |

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| ILLINOIS: | | | | | | | |
| Biotech. Center, Northwestern Univ.. | $517,000 | | $888,000 | | -$888,000 | - - | |
| INDIANA: | | | | | | | |
| Molecular & Cellular Biotech. Facility, Indiana University | 2,155,000 | | 300,000 | | -300,000 | - - | |
| IOWA: | | | | | | | |
| Trade Marketing Center ..... | (a) | | - - | | - - | - - | |
| KANSAS: | | | | | | | |
| Plant Science Ctr., Kansas State Univ. | 1,353,000 | | 1,200,000 | | -1,200,000 | - - | |
| KENTUCKY | | | | | | | |
| Applied Research and Man Power Training Center ..... | - - | | (a) | | - - | - - | |
| LOUISIANA: | | | | | | | |
| Fish Processing Facility ..... | (a) | | - - | | - - | - - | |
| Red Meat Processing Facility ..... | (a) | | 75,000 | | -75,000 | - - | |
| MAINE: | | | | | | | |
| Presque Isle Farm Bldg. Consolidation, University of Maine | 776,000 | | - - | | - - | - - | |
| Wood Processing Facilities ..... | (a) | | - - | | - - | - - | |
| MARYLAND: | | | | | | | |
| Institute for Nat. Resources & Envir. Science, Univ. of Maryland ..... | 862,000 | | 1,776,000 | | -1,776,000 | - - | |
| MASSACHUSETTS: | | | | | | | |
| Center for Hunger, Poverty, Nutrition & Policy, Tufts Univ. | - - | | 3,389,000 | | -3,389,000 | - - | |
| MICHIGAN: | | | | | | | |
| Food Toxicology Ctr., Michigan State Univ. | 15,010,000 | | - - | | - - | - - | |
| MISSISSIPPI: | | | | | | | |
| Biological Technology Ctr. for Water and Resources, Univ. of Mississippi ..... | 186,000 | | 100,000 | | -100,000 | - - | |
| MISSOURI: | | | | | | | |
| Meat Science & Safety Center ..... | (a) | | 2,428,000 | | -2,428,000 | - - | |
| Bioscience Research Ctr., U. of Missouri | (a) | | - - | | - - | - - | |
| Center for Plant Bio-diversity, St. Louis | - - | | (a) | | - - | - - | |
| MONTANA: | | | | | | | |
| Bioscience Center, Montana State Univ. | 915,000 | | 1,987,000 | | -1,987,000 | - - | |
| NEVADA: | | | | | | | |
| Biochemistry and Biology Field Research Station, Univ. of Nevada ... | 215,000 | | 250,000 | | -250,000 | - - | |
| NEW JERSEY: | | | | | | | |
| Plant Bioscience Fac., Rutgers Univ. | 2,623,000 | | 2,329,000 | | -2,329,000 | - - | |
| NEW MEXICO: | | | | | | | |
| Center for Arid Land Studies, New Mexico State University .. | (a) | | 849,000 | | -849,000 | - - | |
| NEW YORK: | | | | | | | |
| New York Botanical Garden ..... | 3,586,090 | | 2,773,910 | | -2,773,910 | - - | |
| Cornell Univ., Research Greenhouse . | - - | | 375,000 | | -375,000 | - - | |

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| NORTH CAROLINA: | | | | | | | |
| Ctr. for Nutrition, Wake Forest Univ. | | | | | | | |
| Bowman-Gray Center Wake Forest Univ... | $3,684,000 | | $3,270,000 | | -$3,270,000 | - - | |
| NORTH DAKOTA: | | | | | | | |
| Animal Care Fac., ND State Univ..... | - - | | 1,775,000 | | -1,775,000 | - - | |
| Food Processing Pilot Plant, NO State Univ | - - | | 750,000 | | -750,000 | - - | |
| Institute for Agric. and Rural Health Research Dev., Minot State Univ..... | 2,179,000 | | - - | | - - | - - | |
| Inst/Ag Health Science and Rural Medicine, Univ. of North Dakota ..... | 1,864,000 | | 650,000 | | -650,000 | - - | |
| Seed Research and Regulatory Facility, ND State University | 431,000 | | - - | | - - | - - | |
| OHIO: | | | | | | | |
| Plant Science Research Facility, Univ. of Toledo ... | 512,000 | | - - | | - - | - - | |
| Lake Erie Soil & Water Research and Education Center .. | (a) | | 280,000 | | -280,000 | - - | |
| OKLAHOMA: | | | | | | | |
| Beef Cattle Research Facility ..... | (a) | | 375,000 | | -375,000 | - - | |
| OREGON: | | | | | | | |
| Seafood Center, Oregon State Univ.. | 1,824,000 | | - - | | - - | - - | |
| Regional Food Innovation Ctr., Oregon State Univ.. | - - | | 2,663,000 | | -2,663,000 | - - | |
| PENNSYLVANIA: | | | | | | | |
| Center for Food Marketing, St. Joseph's University | - - | | 7,120,000 | | -7,120,000 | - - | |
| RHODE ISLAND: | | | | | | | |
| Bldg. Consolidation, Univ. of RI ..... | - - | | 3,738,000 | | -3,738,000 | - - | |
| SOUTH DAKOTA: | | | | | | | |
| No. Plains Biostress Lab., SD State Univ. | 875,000 | | - - | | - - | - - | |
| TENNESSEE: | | | | | | | |
| Nursery Crop Research Station, Tennessee State University .. | 367,000 | | 345,000 | | -345,000 | - - | |
| Ag., Biological and Envir. Research Complex, Univ. of Tennessee, Knoxville | 797,000 | | 1,775,000 | | -1,775,000 | - - | |
| Horticulture Public Service Research & Education Center, Middle Tennessee State University .. | (a) | | 287,000 | | -287,000 | - - | |
| TEXAS: | | | | | | | |
| Inst. of Biosciences & Technology, Texas A&M Univ. at Houston | 603,000 | | - - | | - - | - - | |
| Southern Crop Improvement, Texas A&M | (a) | | 621,000 | | -621,000 | - - | |

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| UTAH: | | | | | | | |
| Biotech Lab, Utah State University .. | $658,000 | | $824,000 | | -$824,000 | - - | |
| VIRGINIA: | | | | | | | |
| Agric. Biotechnology Facility, Virginia Polytechnic Inst. & State University .. | 880,000 | | 1,469,000 | | -1,469,000 | - - | |
| WASHINGTON: | | | | | | | |
| College of Veterinary Medicine, Animal Disease Biotech Fac.: WA State Univ..... | 2,258,000 | | 5,105,000 | | -5,105,000 | - - | |
| WISCONSIN: | | | | | | | |
| Agric. Biotech/ Genetics Fac., Univ. of Wisconsin ..... | 2,161,000 | | - - | | - - | - - | |
| College of Natural Resources, Univ. of Wisconsin, Stephens Point ..... | 86,000 | | 2,104,000 | | -2,104,000 | - - | |
| WYOMING: | | | | | | | |
| Envir. Simulation Fac., Univ. of WY | 431,000 | | 1,065,000 | | -1,065,000 | - - | |
| Reports on footnote (a) items ..... | 174,429 | | 185,571 | | -185,571 | - - | |
| Federal Admin. (3%) . | (1,702,830) | | (2,064,780) | | (-2,064,780) | - - | |
| Total obligations .. | 60,521,519 | 10 | 65,425,481 | 10 | -65,425,481 | - - | |
| Unobligated Balances: | | | | | | | |
| Available, start of year ..... | (16,972,000) | | (8,551,481) | | 8,551,481 | - - | |
| Available, end of year ..... | 8,551,481 | | - - | | - - | - - | |
| Total appropriation ... | 52,101,000 | 10 | 56,874,000 (b) | 10 | -56,874,000 (1) | - - | |

(a) Funds were provided to the Cooperative State Research Service for the purpose of reporting to Congress on the need for this facility. Actual funds are not earmarked for award to the institution.

(b) A rescission of $34 million has been proposed for fiscal year 1994.

## EXPLANATION OF PROGRAM

In the Fiscal Year 1994 Appropriations Act, $56.8 million was appropriated to CSRS for Buildings and Facilities at designated institutions. These funds are available until expended and CSRS is awarding grants for these facilities to the institutions.

## JUSTIFICATION OF DECREASE

(1) A decrease of $56,874,000 for Buildings and Facilities ($56,874,000 available in 1994).

Need for Change. These funds were earmarked for facilities at specific institutions in 1994. Keeping with the Administration's policy of awarding research and construction grants through a competitive, peer-reviewed process, no additional Federal funding is being proposed in 1995.

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| Univ. of California, Davis/Riverside | 1991 Report | (a) | Design work underway. |
| Altern. Pest Control Containment and Quarantine Facility | 1992 Planning and Construction | 207,000 (b) | |
| | 1993 Construction | 178,000 | |
| | 1994 Construction | 2,219,000 | |
| | Total | 2,604,000 | |
| University of California, Davis | 1990 Planning | 128,000 | Phase II construction complete. |
| Grape Importation and Clean Stock Facility | 1991 Planning and Construction | 897,000 | Construction underway for Phase III. |
| | 1992 Construction | 1,609,000 (b) | |
| | 1993 Construction | 582,000 | |
| | Total | 3,216,000 | |
| Colorado State Univ., Fort Collins | 1993 Report | (a) | Design work underway. |
| Animal Reproduction and Biotech. Facility | 1994 Planning | 340,000 | |
| University of Connecticut, Storrs | 1994 Report | (a) | Preliminary estimates received. Study to be conducted by CSRS in second quarter of FY 1994 to determine need for facility. |
| Agricultural Biotechnology Lab. | | | |
| University of Delaware, Newark | 1993 Report | (a) | Pre-design work underway. |
| Poultry Biocontainment Laboratory | 1994 Planning | 350,000 | |
| University of Florida, Alachua | 1988 Feasibility Study | 50,000 | Design complete. Construction underway. |
| Agricultural Biotechnology Inst. | 1989 Planning and Construction | 600,000 | |
| | 1990 Construction | 1,530,000 | |
| | 1991 Construction | 2,690,000 | |
| | 1992 Construction | 840,000 | |
| | 1993 Construction | 276,000 (c) | |
| | Total | 5,986,000 | |

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| Georgia Southern Univ., Statesboro<br>Center for Rural Health and Epidemiology | 1993 Report | (a) | Study conducted by CSRS in FY 1993 and report submitted to Congress. |
| Savannah State College, Savannah, GA<br>Center for Advanced Water Technology and Energy Systems | 1991 Report | (a) | Design complete. Construction will begin when all funds are in hand. |
| | 1992 Planning and Construction | 136,000 | |
| | 1993 Construction | 376,000 | |
| | 1994 Construction | 213,000 | |
| | Total | 725,000 | |
| University of Georgia, Athens<br>Biocontainment Facility | 1988 Feasibility Study | 50,000 | Design complete. Construction contract cannot be awarded until all funds are in hand. |
| | 1989 Construction | 467,000 | |
| | 1990 Construction | 985,000 | |
| | 1991 Construction | 1,992,000 | |
| | 1992 Construction | 425,000 | |
| | 1994 Construction | 1,793,000 | |
| | Total | 5,712,000 | |
| University of Georgia, Tifton<br>Environmentally Sound Production Agriculture Laboratory | 1990 Report | (a) | Design work nearing completion. |
| | 1991 Planning and Construction | 300,000 | |
| | 1992 Construction | 1,775,000 | |
| | 1993 Construction | 1,293,000 | |
| | Total | 3,368,000 | |
| University of Georgia, Tifton<br>Vidalia Onion Storage Research Facility | 1991 Report | (a) | Design complete. In process of awarding construction contract. |
| | 1992 Planning and Construction | 225,000 | |
| | 1993 Construction | 194,000 | |
| | Total | 419,000 | |

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| University of Hawaii, Manoa | 1989 Feasibility Study | 50,000 | Design complete. Construction underway. |
| Ctr. for Tropical and Subtropical Agriculture | 1990 Planning | 1,121,000 | |
| | 1991 Construction | 5,675,000 | |
| | 1992 Construction | 3,842,000 | |
| | 1993 Construction | 3,311,000 | |
| | Total | 13,999,000 | |
| Oceanic Institute, Waimanalo, Hawaii | 1988 Planning and Construction | 6,375,000 | Phase I complete. Phase II planning underway. |
| Center for Applied Aquaculture | 1994 Planning and Construction | 2,219,000 | |
| | | 8,594,000 | |
| University of Idaho, Moscow | 1990 Report | (a) | Design complete. Construction underway. |
| Agricultural Biotechnology Facility | 1991 Planning and Construction | 590,000 | |
| | 1992 Construction | 500,000 (b) | |
| | 1993 Construction | 431,000 (c) | |
| | 1994 Construction | 888,000 | |
| | Total | 2,409,000 | |
| Northwestern Univ., Evanston, IL | 1991 Report | (a) | Phase II of construction scheduled for completion in FY 1994. Facility partially occupied. |
| Biotechnology Center | 1992 Construction | 600,000 | |
| | 1993 Construction | 517,000 | |
| | 1994 Construction | 888,000 | |
| | Total | 2,005,000 | |
| Indiana University, Bloomington | 1990 Report | (a) | Construction underway. |
| Molecular and Cellular Biotech. Facility | 1991 Planning and Construction | 1,500,000 | |
| | 1992 Construction | 2,750,000 | |
| | 1993 Construction | 2,155,000 | |
| | 1994 Construction | 300,000 | |
| | Total | 6,705,000 | |
| World Ag. Dvlpmnt. Fnd. (Des Moines) | 1993 Report | (a) | Study conducted by CSRS in FY 1993 and report submitted to Congress. |
| World Food and Agric. Capitol | | | |

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| Kansas State University, Manhattan<br>Plant Science Research Center | 1987 Feasibility Study | 50,000 (d) | Construction nearing completion. |
| | 1989 Construction | 1,350,000 | |
| | 1990 Construction | 2,962,000 | |
| | 1991 Construction | 3,731,000 | |
| | 1992 Construction | 1,570,000 | |
| | 1993 Construction | 1,353,000 | |
| | 1994 Construction | 1,200,000 | |
| | Total | 12,216,000 | |
| University of Kentucky, Princeton<br>Applied Research and Manpower Training Center | 1994 Report | (a) | Preliminary estimates received. Study to be conducted by CSRS in second quarter of FY 1994 to determine need for facility. |
| Northw. St. Univ., Natchitoches, LA<br>Food Processing Facility | 1993 Report | (a) | Study conducted by CSRS in FY 1993 and report submitted to Congress. |
| Northw. St. Univ., Natchitoches, LA<br>Red Meat Processing Facility | 1993 Report | (a) | Pre-design work underway. |
| | 1994 Planning and Construction | 75,000 | |
| University of Maine, Orono<br>Wood Processing Facilities | 1993 Report | (a) | Study conducted by CSRS in FY 1993 and report submitted to Congress. |
| University of Maine, Presque Isle<br>Building Consolidation | 1990 Report | (a) | Design complete. Construction underway. |
| | 1991 Planning and Construction | 150,000 | |
| | 1993 Construction | 776,000 | |
| | Total | 926,000 | |
| Univ. of Maryland, College Park<br>Institute for Natural Products and Environmental Science | 1991 Report | (a) | Pre-design nearly complete. Organizing for architectural work. |
| | 1992 Planning and Construction | 1,000,000 | |
| | 1993 Construction | 862,000 | |
| | 1994 Construction | 1,776,000 | |
| | Total | 3,638,000 | |

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| Tufts University, Boston, MA<br>Center for Hunger, Poverty, Nutrition, and Policy | 1991 Report<br>1992 Planning and Construction<br>1993 Construction<br>1994 Construction<br>Total | (a)<br>562,000 (c)<br>484,000 (c)<br>2,343,000<br>3,389,000 | Under municipal review. Zoning issue expected to be resolved by second quarter of FY 1994. |
| Michigan State Univ., East Lansing<br>Food Toxicology Center | 1989 Planning<br>1990 Planning and Construction<br>1991 Construction<br>1992 Construction<br>1993 Construction<br>Total | 1,250,000<br>2,962,000<br>5,076,000<br>10,394,000 (b)<br>4,616,000<br>24,298,000 | Construction underway. |
| University of Mississippi, Oxford<br>Center for Water and Wetlands Resources | 1992 Planning and Construction<br>1993 Construction<br>1994 Construction<br>Total | 100,000 (b)<br>86,000<br>100,000<br>286,000 | Pre-design work nearly complete. |
| Missouri Botanical Garden, St. Louis<br>Center for Plant Biodiversity | 1994 Report | (a) | Preliminary estimates received. Study to be conducted by CSRS in second quarter of FY 1994 to determine need for facility. |
| University of Missouri, Columbia<br>Biosciences Research Center | 1993 Report | (a) | Study conducted by CSRS in FY 1993 and report submitted to Congress. |
| University of Missouri, Columbia<br>Meat Science and Safety Center | 1993 Report<br>1994 Planning and Construction | (a)<br>2,428,000 | Pre-design work underway. |

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| Montana State University, Bozeman | 1989 Feasibility Study | 50,000 | Design work ongoing. Construction |
| Bioscience Research Laboratory | 1990 Planning | 247,000 | cannot begin until State matching funds |
| | 1991 Construction | 1,250,000 | are in hand. |
| | 1992 Construction | 1,062,000 | |
| | 1993 Construction | 915,000 | |
| | 1994 Construction | 1,987,000 | |
| | Total | 5,511,000 | |
| University of Nevada, Reno | 1992 Planning and Construction | 250,000 | Construction underway but delayed due |
| Whittell Biochemistry and Biology | 1993 Construction | 215,000 | to snow in Sierra Nevada Mountains. |
| Field Research Station | 1994 Construction | 250,000 | |
| | Total | 715,000 | |
| Rutgers Univ., New Brunswick, NJ | 1988 Feasibility Study | 50,000 | Construction ongoing. |
| Center for Molecular Biology | 1989 Planning | 250,000 | |
| | 1990 Planning | 89,000 | |
| | 1991 Construction | 2,544,000 | |
| | 1992 Construction | 3,044,000 | |
| | 1993 Construction | 2,623,000 | |
| | 1994 Construction | 2,329,000 | |
| | Total | 10,929,000 | |
| New Mexico State Univ., Las Cruces | 1993 Report | (a) | Pre-design work underway. |
| Center for Arid Land Studies | 1994 Planning | 849,000 | |
| New York Botanical Garden, Bronx | 1991 Report | (a) | Design work nearing completion. |
| Library/Herbarium | 1992 Planning and Construction | 1,350,000 | Organizing for construction. |
| | 1993 Construction | 3,697,000 | |
| | 1994 Construction | 2,663,000 | |
| | Total | 7,710,000 | |
| Cornell University, Ithaca | 1992 Planning and Construction | 375,000 | Construction complete. |
| Research Greenhouse | 1993 Construction | 375,000 (c) | |
| | Total | 750,000 | |

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| Wake Forest Univ., Winston-Salem, NC<br>Center for Research on Human Nutrition and Chronic Disease Prevention | 1990 Planning and Construction<br>1992 Construction<br>1993 Construction<br>1994 Construction<br>Total | 2,853,000 (e)<br>1,825,000<br>3,684,000<br>3,270,000<br>11,632,000 | Construction is ongoing. |
| Minot State University, Minot, ND<br>Inst. for Agricultural and Rural Human Resource Development | 1992 Planning and Construction<br>1993 Construction<br>Total | 240,000 (b)<br>1,939,000<br>2,179,000 | Construction is underway. Scheduled for completion in second quarter of FY 1995. |
| North Dakota State Univ., Fargo<br>Animal Care Facility | 1991 Report<br>1992 Planning and Construction<br>1994 Construction<br>Total | (a)<br>250,000<br>1,775,000<br>2,025,000 | Design complete. Organizing for construction. |
| North Dakota State Univ., Fargo<br>Seed Research and Regulatory Fac. | 1991 Report<br>1992 Planning and Construction<br>1993 Construction<br>Total | (a)<br>500,000<br>431,000<br>931,000 | Construction complete. |
| North Dakota State Univ., Fargo<br>Food Processing Pilot Plant | 1992 Planning and Construction<br>1993 Construction<br>Total | 375,000 (c)<br>375,000 (c)<br>750,000 | Pre-design nearly complete. |
| Univ. of North Dakota, Grand Forks<br>Inst. for Agricultural Health Science and Rural Medicine | 1991 Planning and Construction<br>1992 Construction<br>1993 Construction<br>1994 Construction<br>Total | 2,892,000<br>4,381,000<br>1,864,000<br>650,000<br>9,787,000 | Construction underway. |
| University of Toledo, Toledo, OH<br>Lake Erie Soil and Water Rsch. and Education Center | 1993 Report<br>1994 Planning | (a)<br>280,000 | Pre-design work underway. |

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| University of Toledo, Toledo, OH<br>Plant Sciences Research Facility | 1992 Planning and Construction<br>1993 Construction<br>Total | 275,000 (b)<br>237,000<br>512,000 | Design complete. Construction underway. |
| Oklahoma State Univ., Stillwater<br>Beef Cattle Research Facility | 1993 Report<br>1994 Planning | (a)<br>375,000 | Pre-design nearly complete. |
| Oregon State University, Astoria<br>Seafood Center | 1991 Report<br>1992 Planning and Construction<br>1993 Construction<br>Total | (a)<br>217,000 (b)<br>1,824,000<br>2,041,000 | Design work nearly complete. |
| Oregon State University, Portland<br>Regional Food Innovation Center | 1992 Report<br>1994 Planning and Construction | (a)<br>2,663,000 | Design work underway. |
| St. Joseph's Univ., Phil., PA<br>Center for Food Marketing | 1991 Planning<br>1992 Construction<br>1993 Construction<br>1994 Construction<br>Total | 600,000<br>2,710,000 (c)<br>2,336,000 (c)<br>2,074,000<br>7,720,000 | Project delayed due to facility siting issue. |
| University of Rhode Island, Kingston<br>Coastal Inst. on Narragansett Bay | 1990 Report<br>1991 Planning and Construction<br>1992 Construction<br>1993 Construction<br>1994 Construction<br>Total | (a)<br>1,904,000<br>500,000<br>431,000 (c)<br>3,307,000<br>6,142,000 | Design work complete. Organizing for construction. |
| South Dakota State Univ., Brookings<br>Northern Plains Biostress Lab. | 1989 Feasibility Study/Planning<br>1990 Construction<br>1991 Construction<br>1992 Construction<br>1993 Construction<br>Total | 100,000<br>1,679,000<br>1,970,000<br>1,515,000<br>875,000<br>6,139,000 | Construction complete. Facility dedicated in fourth quarter of FY 1993. |

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| Middle Tenn. St. Univ., Murfreesboro | 1993 Report | (a) | Pre-design work underway. |
| Hort. Public Service Research and Education Center | 1994 Planning and Construction | 287,000 | |
| Tennessee State University, McMinnville | 1990 Planning and Construction | 247,000 | Design complete. Construction underway. |
| Nursery Crop Research Station | 1991 Construction | 248,000 | |
| | 1992 Construction | 426,000 | |
| | 1993 Construction | 367,000 | |
| | 1994 Construction | 345,000 | |
| | Total | 1,633,000 | |
| University of Tennessee, Knoxville | 1992 Planning and Construction | 925,000 | Design work ongoing. |
| Agricultural, Biological and Environmental Research Complex | 1993 Construction | 797,000 | |
| | 1994 Construction | 1,775,000 | |
| | Total | 3,497,000 | |
| Texas A&M University, College Station | 1993 Report | (a) | Phase I complete. Pre-design underway for Phase II. |
| Center for Southern Crop Improvement | 1994 Planning | 621,000 | |
| Texas A&M University, Houston | 1988 Feasibility Study | 50,000 | Construction complete and facility operational in second quarter of FY 1992. |
| Inst. for Biosciences and Technology | 1989 Construction | 1,250,000 | |
| | 1990 Construction | 2,962,000 | |
| | 1991 Construction | 3,747,000 (f) | |
| | 1992 Construction | 3,860,000 | |
| | 1993 Construction | 603,000 | |
| | Total | 12,472,000 | |

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| Utah State University, Logan | 1990 Report | (a) | Phases I and II complete. Phase III |
| Biotechnology Laboratory | 1991 Planning and Construction | 280,000 | nearing completion. |
| | 1992 Construction | 764,000 | |
| | 1993 Construction | 658,000 | |
| | 1994 Construction | 824,000 | |
| | Total | 2,526,000 | |
| Virginia Tech, Blacksburg | 1988 Feasibility Study | 50,000 | Facility undergoing partial redesign |
| Agricultural Biotech. Center | 1989 Planning | 100,000 | due to resiting. Redesign nearly |
| | 1990 Planning | 112,000 | complete. |
| | 1991 Construction | 918,000 | |
| | 1992 Construction | 1,021,000 | |
| | 1993 Construction | 880,000 | |
| | 1994 Construction | 1,469,000 | |
| | Total | 4,550,000 | |
| Washington State Univ., Pullman | 1990 Report | (a) | Design work nearly complete. |
| Animal Disease Biotech. Fac. | 1991 Planning and Construction | 1,210,000 | Groundbreaking scheduled for third |
| | 1992 Construction | 2,120,000 | quarter of FY 1994. |
| | 1993 Construction | 2,258,000 | |
| | 1994 Construction | 5,105,000 | |
| | Total | 10,693,000 | |
| University of Wisconsin, Madison | 1989 Feasibility Study | 50,000 | Construction underway. |
| Agricultural Biotechnology and | 1990 Planning | 592,000 | |
| Genetics Building | 1991 Construction | 2,600,000 | |
| | 1992 Construction | 7,393,000 | |
| | 1993 Construction | 2,161,000 | |
| | Total | 12,796,000 | |
| Univ. of Wisconsin-Stevens Point | 1992 Report | (a) | Design work ongoing. |
| Natural Resources Building | 1993 Planning | 86,000 | |
| | 1994 Planning and Construction | 2,104,000 | |
| | Total | 2,190,000 | |

| Location and Facility | Year and Purpose | Funds Provided | Description |
|---|---|---|---|
| University of Wyoming, Laramie | 1991 Report | (a) | Architect appointed in first quarter of FY 1994. |
| Environmental Simulation Facility | 1992 Planning and Construction | 500,000 | |
| | 1993 Construction | 431,000 | |
| | 1994 Construction | 1,065,000 | |
| | Total | 1,996,000 | |
| Reports (a) | 1990 | 296,000 | |
| | 1991 | 300,000 | |
| | 1992 | 150,000 | |
| | 1993 | 260,000 | |
| | 1994 | 100,000 | |
| | Total | 1,106,000 | |

Footnotes:

(a) Funds are provided to the Cooperative State Research Service for the purpose of reporting to Congress on the need for this facility. Actual funds are not earmarked for award to the institution.

(b) Funds carried over to fiscal year 1993.

(c) Funds carried over to fiscal year 1994.

(d) Fiscal year 1987 funds carried over to fiscal year 1989 and awarded with construction funds appropriated in fiscal year 1989.

(e) Funds carried over and awarded in fiscal year 1991.

(f) Includes $950,000 appropriated in fiscal year 1989 and earmarked for the University of Texas Southwestern in Dallas. Funds redirected to Texas A&M University in fiscal year 1991.

# EXTENSION SERVICE

## Purpose Statement

The Cooperative Extension System, a national educational network, is a dynamic organization pledged to meeting the country's needs for research, knowledge and educational programs that will enable people to make practical decisions. Its mission is to help people improve their lives through an educational process that uses scientific knowledge focused on issues and needs. Cooperative Extension work was established by the Smith-Lever Act of May 8, 1914, as amended. This work is further emphasized in Title XIV (National Agricultural Research, Extension, and Teaching Policy) of the Food and Agriculture Act of 1977, as amended.

To accomplish its mission, the Cooperative Extension System is constantly changing to meet the shifting needs and priorities of the people it serves. As peoples' needs and priorities change, program priorities, organizational structures, and external relationships must also change. To fulfill the requirements of the Smith-Lever Act, the Cooperative Extension Service in each state, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, the Northern Marianas and Micronesia, conduct educational programs to improve American agriculture and strengthen the Nation's families and communities.

This public funded, nonformal educational network combines the expertise and resources of Federal, state and local governments. The partners in this unique System are:

- The Extension Service of the U.S. Department of Agriculture (USDA);
- Extension professionals at land-grant universities throughout the United States and its territories; and
- Extension professionals in nearly all of the Nation's 3,150 counties.

Thousands of paraprofessionals and nearly 3 million volunteers support this partnership and magnify its impact. Strong linkages with both public and private external groups are also crucial to the Extension System's strength and vitality.

The Extension Service, USDA, provides national leadership and represents the U.S. Department of Agriculture within the Cooperative Extension System, comprised of some 31,000 state and local Extension System employees and 2.9 million program service volunteers. As of September 30, 1993, there were 190 full-time permanent employees and 15 other than full-time permanent Extension Service-USDA employees, all located in the D.C. metropolitan area.

Under the proposed reorganization, this agency will be merged into the newly established Agricultural Research and Education Service.

EXTENSION SERVICE

Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual Amount | 1993 Actual Staff-Years | 1994 Estimated Amount | 1994 Estimated Staff-Years | 1995 Estimated Amount | 1995 Estimated Staff-Years |
|---|---|---|---|---|---|---|
| Extension Service | $428,428,785 | 180 | $434,582,000 | 180 | $432,441,000 | 170 |
| Obligations under Other USDA Appropriations: | | | | | | |
| Agricultural Marketing Service - | | | | | | |
| Pesticide Educational Materials | 300,000 | | 300,000 | | 300,000 | |
| Agricultural Stabilization and Conservation Service - | | | | | | |
| Administrative Support | 7,680 | | 10,000 | | 10,000 | |
| Colorado River Salinity | 618,400 | | 620,000 | | 620,000 | |
| Options Pilot Programs | 75,870 | | 80,000 | | 80,000 | |
| Rural Clean Water Project | 262,186 | | 250,000 | | 250,000 | |
| Agricultural Research Service - | | | | | | |
| Integrated Pest Mgmt. Newsletter | 5,000 | | -- | | -- | |
| Producers Views/WQ Measures | 40,000 | | -- | | -- | |
| Study: Cert Crop Advisor Prog. | 12,000 | | -- | | -- | |
| Study: Changing the Amer Diet | 10,000 | | -- | | -- | |
| Study: Manuf/Industr Ext Models | 60,000 | | -- | | -- | |
| Study: S&E Research & Ext Prog. | 70,000 | | -- | | -- | |
| Support Services | 14,513 | | 16,000 | | 16,000 | |
| Alternative Agriculture Research and Commericialization - | | | | | | |
| Administrative Support | 21,827 | | 30,000 | | 30,000 | |
| Cooperative State Research Service - | | | | | | |
| PLANETOR--Microcomputers | 80,000 | | 40,000 | | 40,000 | |
| Internet Connection | 10,000 | | 50,000 | | 50,000 | |
| Sustainable Agriculture/Qual Life | 70,000 | | 70,000 | | 70,000 | |
| Economic Research Service - | | | | | | |
| Water Quality Measures Project | 30,000 | | -- | | -- | |
| Federal Crop Insurance Corporation - | | | | | | |
| Educational Programs | 380,385 | | 350,000 | | 350,000 | |
| Food Safety & Inspection Service - | | | | | | |
| Nutrition Labeling & Education | 4,000 | | -- | | -- | |
| Forest Service - | | | | | | |
| FS Prognosis Project | 22,865 | | -- | | -- | |
| Office of International Cooperation and Development - | | | | | | |
| Citizen Ambassador Program | 2,500 | | -- | | -- | |
| Rural Development Administration- | | | | | | |
| Develop Models for Business Dev. | 3,025,000 | | -- | | -- | |
| Soil Conservation Service - | | | | | | |
| Farm Assessment System | 75,000 | | 70,000 | | 70,000 | |
| National Composting Conference | 5,000 | | -- | | | |
| Total, Other USDA Appropriations | 5,202,226 | | 1,886,000 | -- | 1,886,000 | |
| Total, Agriculture Appropriations | 433,631,011 | 180 | 436,468,000 | 180 | 434,327,000 | 170 |

| Item | 1993 Actual Amount | 1993 Actual Staff-Years | 1994 Estimated Amount | 1994 Estimated Staff-Years | 1995 Estimated Amount | 1995 Estimated Staff-Years |
|---|---|---|---|---|---|---|
| Other Federal Funds: | | | | | | |
| Reimbursements: | | | | | | |
| AID-PASA International Extension - | 3,747,161 | | 10,730,000 | | 12,550,000 | |
| Commission on Nat'l and Community Service - | | | | | | |
| Youth Service Programming..... | 100,000 | | 100,000 | | 100,000 | |
| Department of Defense - | | | | | | |
| Family Life Enrichment..... | 2,390,564 | | 1,900,000 | | 2,800,000 | |
| Department of Health and Human Services - | | | | | | |
| Decision for Health Initiative Team.... | 25,000 | | 25,000 | | 25,000 | |
| Department of Interior - | | | | | | |
| Fish & Wildlife Educational Prog. ..... | 7,176 | | 10,000 | | 10,000 | |
| Environmental Protection Agency - | | | | | | |
| ES Liaison - Water Quality..... | 40,000 | | 50,000 | | 50,000 | |
| Farm Assessment System..... | 80,000 | | 90,000 | | 90,000 | |
| N.Y. Sea Grant Extension Project..... | 33,300 | | 34,000 | | 34,000 | |
| Pesticide Applicator Training..... | 1,742,889 | | 2,740,000 | | -- | |
| Pesticide Safety Material..... | 100,000 | | 100,000 | | 100,000 | |
| Technical Assistance to EPA..... | 46,500 | | 10,000 | | 30,000 | |
| Total, Other Federal Funds | 8,312,590 | | 15,789,000 | | 15,789,000 | |
| Non-Federal Funds: | | | | | | |
| Univ. of Wisconsin Extension - NELD Program..... | 13,500 | | -- | | -- | |
| Annie E. Casey Foundation - | | | | | | |
| Educational Programs..... | -- | | 75,000 | | 75,000 | |
| Federal Building Funds..... | 49,493 | | 100,000 | | 100,000 | |
| Federal Telecommunications System... | 2,800 | | 10,000 | | 10,000 | |
| Cost Share Printing..... | 100,000 | | 100,000 | | 100,000 | |
| Computerized Information Delivery System..... | 24,000 | | 40,000 | | 40,000 | |
| Total, Non-Federal Funds | 189,793 | | 325,000 | | 325,000 | |
| Total, Extension Service | 442,133,394 | 180 | 452,582,000 | 180 | 450,441,000 | 170 |

## EXTENSION SERVICE

Permanent Positions by Grade and Staff Summary
1993 and Estimated 1994 and 1995

| GRADE | 1993 | 1994 Est. | 1995 Est. 1/ |
|---|---|---|---|
| ES-6 | 1 | 1 | 1 |
| ES-5 | 1 | 1 | 1 |
| ES-4 | 4 | 4 | 4 |
| ES-3 | 2 | 2 | 2 |
| ES-2 | 1 | 1 | 1 |
| GS/GM-15 | 32 | 32 | 32 |
| GS/GM-14 | 37 | 37 | 36 |
| GS/GM-13 | 10 | 10 | 11 |
| GS-12 | 11 | 11 | 11 |
| GS-11 | 10 | 10 | 10 |
| GS-10 | 1 | 1 | 1 |
| GS-09 | 9 | 9 | 9 |
| GS-08 | 7 | 7 | 7 |
| GS-07 | 13 | 13 | 13 |
| GS-06 | 24 | 24 | 24 |
| GS-05 | 12 | 12 | 12 |
| GS-04 | 15 | 15 | 15 |
| GS-03 | 3 | 3 | 3 |
| Other Graded Positions | 0 | 0 | 0 |
| Ungraded Positions | 0 | 0 | 0 |
| Total, Permanent positions | 193 | 193 | 193 |
| Unfilled positions End of Year | 0 | 0 | 0 |
| Total Permanent Employment End of Year | 193 | 193 | 193 |
| Staff Years: Ceiling | 180 | 180 | 170 |

1/ Numbers of positions and grade levels are distributed on a pro-rata basis to meet the goals of the ARES realignment.

## EXTENSION SERVICE

### CLASSIFICATION BY OBJECTS

### 1993 And Estimated 1994 and 1995

| Personnel Compensation: | 1993 | 1994 | 1995 |
|---|---|---|---|
| Headquarters | $10,488,109 | $10,905,000 | $10,947,000 |
| Field | -0- | -0- | -0- |
| 11 Total Personnel Compensation | 10,488,109 | 10,905,000 | 10,947,000 |
| 12 Personnel Benefits | 2,295,312 | 2,386,000 | 2,402,000 |
| Total Pers. Comp. & Benefits | 12,783,421 | 13,291,000 | 13,349,000 |
| Other Objects: | | | |
| 21 Travel | 916,588 | 954,000 | 950,000 |
| 22 Transportation of things | 47,216 | 50,000 | 50,000 |
| 23.2 Communications, utilities & other rent | 752,595 | 782,000 | 780,000 |
| 24 Printing & reproduction | 415,333 | 433,000 | 430,000 |
| 25 Other services | 1,495,266 | 1,557,000 | 1,489,000 |
| 26 Supplies & materials | 336,200 | 348,000 | 340,000 |
| 31 Equipment | 319,151 | 332,000 | 330,000 |
| 41 Grants, subsidies & contributions. | 411,821,015 | 417,085,000 | 414,723,000 |
| Total other objects | 416,103,364 | 421,541,000 | 419,092,000 |
| Total direct obligations | 428,886,785 | 434,832,000 | 432,441,000 |
| Position Data: | | | |
| Average Salary, ES positions | $108,657 | $110,000 | $112,000 |
| Salary, GM/GS positions | $ 50,232 | $ 51,000 | $ 53,000 |
| Average Grade, GM/GS positions | 9.99 | 9.99 | 9.99 |

## EXTENSION SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Payments to States, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, Micronesia, Northern Marianas, and American Samoa: For payments for cooperative [agricultural] extension work under the Smith-Lever Act, as amended, to be distributed under sections 3(b) and 3(c) of said Act, and under section 208 (c) of Public Law 93-471, for retirement and employees' compensation costs for extension agents and for costs of penalty mail for cooperative extension agents and State extension directors, $272,582,000; payments for the nutrition and family education program for low-income areas under section 3(d) of the Act, $61,431,000; payments for the pest management program under section 3(d) of the Act, [$8,459,000;] $10,459,000; payments for the farm safety [and rural health] program under section 3(d) of the Act, [$2,988,000;] $988,000; payments for the pesticide impact assessment program under section 3(d) of the Act, $3,363,000; payments to upgrade 1890 land-grant college research and extension facilities as authorized by section 1447 of Public Law 95-113, as amended (7 U.S.C. 3222), $7,901,000, to remain available until expended; payments for the rural development centers under section 3(d) of the Act, $950,000; payments for a ground-water quality program under section 3(d) of the Act, $11,234,000; payments for the Agricultural Telecommunications Program, as authorized by Public Law 101-624 (7 U.S.C. 5926), $1,221,000; payments for youth-at-risk programs under section 3(d) of the Act, $10,000,000; payments for a Nutrition Education Initiative under section 3(d) of the Act, $4,265,000; payments for a food safety program under section 3(d) of the Act, [$1,975,000;] $2,975,000; payments for a Pesticide Applicator Training program under Section 3(d) of the Act, $2,000,000; payments for carrying out the provisions of the Renewable Resources Extension Act of 1978, $3,341,000; payments for Indian Reservation Extension agents under section 3(d) of the Act, $1,750,000; [payments to establish and operate centers of rural technology development as authorized by section 2347 of Public Law 101-624 (7 U.S.C. 1932), $1,500,000];payments for sustainable agriculture programs under section 3(d) of the Act, [$2,963,000;] $4,963,000; payments for rural health and safety education as authorized by section 2390 of Public Law 101-624 (7 U.S.C. 2661 note, 2662), [$2,000,000;] $2,250,000; and payments for extension work by the colleges receiving the benefits of the second Morrill Act (7 U.S.C. 321-326, 328) and Tuskegee University $25,472,000; in all, [$423,395,000;] $427,145,000. Provided, That funds hereby appropriated pursuant to section 3(c) of the Act of June 26, 1953, and section 506 of the Act of June 23, 1972, as amended, shall not be paid to any State, District of Columbia, Puerto Rico, Guam, or the Virgin Islands, Micronesia, Northern Marianas, and American Samoa prior to availability of an equal sum from non-Federal sources for expenditure during the current fiscal year.

Federal administration and coordination: For administration of the Smith-Lever Act, as amended, and the Act of September 29, 1977 (7 U.S.C. 341-349), as amended, and section 1361(c) of the Act of October 3, 1980 (7 U.S.C. 301n.), and to coordinate and provide program leadership for the extension work of the Department and the several States and insular possessions, [$11,187,000] $5,296,000. (Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 1994).

The change is for the purpose of providing funding for a pesticide applicator training program under Section 3(d) of the Act.

## EXTENSION SERVICE

| | |
|---|---|
| Appropriations Act, 1994 | $434,582,000 |
| Budget Estimate, 1995 | 432,441,000 |
| Decrease in Appropriations | 2,141,000 |

### SUMMARY OF INCREASES AND DECREASES
### (On Basis of Appropriation)
### Dollars in Thousands

| Item of Change | 1994 Estimated | Pay Costs | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| **Base Programs:** | | | | |
| Smith-Lever 3b&c | $271,557 | - - | - - | $271,557 |
| 1890's and Tuskegee University | 25,472 | - - | - - | 25,472 |
| D.C. Extension | 1,025 | - - | - - | 1,025 |
| **Earmarked Programs and National Initiatives:** | | | | |
| EFNEP | 61,431 | - - | - - | 61,431 |
| Integrated Pest Management | 8,459 | - - | + $2,000 | 10,459 |
| Pesticide Impact Assessment | 3,363 | - - | - - | 3,363 |
| Farm Safety | 2,988 | - - | -2,000 | 988 |
| Rural Development Centers | 950 | - - | - - | 950 |
| Water Quality | 11,234 | - - | - - | 11,234 |
| Pesticide Applicator Training | - - | - - | + 2,000 | 2,000 |
| Youth & Families at Risk | 10,000 | - - | - - | 10,000 |
| Food Safety | 1,975 | - - | + 1,000 | 2,975 |
| Indian Reservation Ext. Agents | 1,750 | - - | - - | 1,750 |
| Sustainable Agriculture | 2,963 | - - | + 2,000 | 4,963 |
| Nutrition Education Initiative | 4,265 | - - | - - | 4,265 |
| Agriculture Telecommunications | 1,221 | - - | - - | 1,221 |
| Renewable Resources Extension Act | 3,341 | - - | - - | 3,341 |
| Rural Technology Grants | 1,500 | - - | -1,500 | 0 |
| Rural Health/Safety | 2,000 | - - | + 250 | 2,250 |
| **Program Support:** | | | | |
| 1890 Facilities (Sec. 1447) | 7,901 | - - | - - | 7,901 |
| Federal Administration: | | | | |
| General Administration | 5,534 | + 140 | -378 | 5,296 |
| Congressional Projects | 5,653 | - - | -5,653 | 0 |
| Subtotal | 11,187 | + 140 | -6,031 | 5,296 |
| Total Available | 434,582 | + 140 | -2,281 | 432,441 |

PROJECT STATEMENT
(On basis of available funds)

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Payments to States: | | | | | | | |
| Smith-Lever Act | | | | | | | |
| 1. Section 3b&c: | | | | | | | |
| Program | $256,044,520 | -- | $264,535,720 | -- | | $264,535,720 | -- |
| Set-aside for Federal Administration (4%) | 6,667,480 | -- | 7,021,280 | -- | | 7,021,280 | -- |
| Subtotal, Section 3b&c | 262,712,000 | -- | 271,557,000 | -- | | 271,557,000 | -- |
| 2. Section 3d Program: | | | | | | | |
| EFNEP | 60,525,000 | -- | 61,431,000 | -- | | 61,431,000 | -- |
| Pest Management | 8,200,000 | -- | 8,459,000 | -- | [1]+2,000,000 | 10,459,000 | -- |
| Pesticide Impact Assessment | 3,405,000 | -- | 3,363,000 | -- | | 3,363,000 | -- |
| Urban Gardening | 3,557,000 | -- | -- | -- | | -- | -- |
| Farm Safety | 2,720,000 | -- | 2,988,000 | -- | [2]-2,000,000 | 988,000 | -- |
| Rural Development Centers | 950,000 | -- | 950,000 | -- | | 950,000 | -- |
| Water Quality | 11,375,000 | -- | 11,234,000 | -- | | 11,234,000 | -- |
| Pesticide Applicator Training | -- | -- | -- | -- | [3]+2,000,000 | 2,000,000 | -- |
| Youth and Families at Risk | 10,000,000 | -- | 10,000,000 | -- | | 10,000,000 | -- |
| Food Safety | 1,500,000 | -- | 1,975,000 | -- | [4]+1,000,000 | 2,975,000 | -- |
| Indian Reservations | 1,750,000 | -- | 1,750,000 | -- | | 1,750,000 | -- |
| Nutrition Education Initiative | 3,530,000 | -- | 4,265,000 | -- | | 4,265,000 | -- |
| Sustainable Agriculture | -- | -- | 2,963,000 | -- | [5]+2,000,000 | 4,963,000 | -- |
| Subtotal, Section 3d | 107,512,000 | -- | 109,378,000 | -- | +5,000,000 | 114,378,000 | -- |
| Total, payments under the Smith-Lever Act | 370,224,000 | 153 | 381,960,000 | 153 | +5,000,000 | 385,935,000 | 145 |
| Payments under Renewable Resources Extension Act | 2,765,000 | -- | 3,341,000 | -- | -- | 3,341,000 | -- |
| Payments to the District of Columbia: | | | | | | | |
| Program | 969,600 | 1 | 984,000 | 1 | -- | 984,000 | -- |
| Set-Aside for Federal Administration (4%) | 40,400 | -- | 41,000 | -- | -- | 41,000 | -- |
| Total, payments to the District of Columbia | 1,010,000 | 1 | 1,025,000 | 1 | -- | 1,025,000 | -- |

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Payments to 1890 Colleges and Tuskegee University: | | | | | | | |
| Program | 23,740,800 | 1 | 24,453,120 | 1 | -0- | 24,453,120 | 1 |
| Set-aside for Federal Administration (4%) | 989,200 | -- | 1,018,880 | -- | -0- | 1,018,880 | -- |
| Total, payments to 1890 Colleges and Tuskegee University | 24,730,000 | 1 | 25,472,000 | 1 | -0- | 25,472,000 | -- |
| Payments to Ag. Telecommunications | 1,221,000 | -- | 1,221,000 | -- | -0- | 1,221,000 | -- |
| Payments to Disadvantaged Farmers Assistance | 2,550,000 | -- | -- | -- | -0- | -- | -- |
| Payments to Rural Technology Grants | 1,000,000 | -- | 1,500,000 | -- | [6]-1,500,000 | -- | -- |
| Payments to Socially Disadvantaged Farmers/Ranchers | 1,000,000 | -- | -- | -- | -0- | -- | -- |
| Payments to Rural Health/Safety | 2,000,000 | -- | 2,000,000 | -- | [7]+250,000 | 2,250,000 | -- |
| 1890 Facilities (Sec. 1447) | 8,708,808 | -- | 8,151,023 | -- | -0- | 7,901,000 | -- |
| 3. Federal Administration and Coordination (Direct Appropriation): | | | | | | | |
| General Admin | 5,149,977 | 25 | 5,534,000 | 25 | -238,000 | 5,296,000 | 23 |
| Congress. Projects | 5,028,000 | -- | 5,653,000 | -- | -5,653,000 | -- | -- |
| Sub-Total | 10,177,977 | -- | 11,187,000 | -- | [8]-5,891,000 | 5,296,000 | -- |
| Flood Relief Supplemental | 3,500,000 | -- | -- | -- | -- | -- | -- |
| Program Set-Asides (non-add) | (3,033,904) | -- | (2,841,910) | -- | -- | (3,051,910) | -- |
| Total Available | 428,886.785 | 180 | 434,832,023 | 180 | -- | -- | -- |
| Unobligated Balance, Start of Year | -708,808 | -- | -250,023 | -- | -- | -- | -- |
| Unobligated Balance, End of Year | 250,023 | -- | -- | -- | -- | -- | -- |
| Total Appropriation | 428,428,785 | 180 | 434,582,000 | 180 | -2,141,000 | 432,441,000 | 170 |

NOTE: A supplemental of $1.4 million has been proposed for fiscal year 1994 to help develop and demonstrate techniques to reduce the spread of Late Blight Fungus of potatoes through improved farm management of cull potatoes.

## EXPLANATION OF PROGRAM

The Cooperative Extension System, a national network, is a dynamic organization pledged to meeting the country's needs for research-based educational programs that will enable people to make practical decisions to improve their lives. To accomplish its mission, the Cooperative Extension System adjusts programs to meet the shifting needs and priorities of the people it serves.

This nonformal educational network combines the expertise and resources of federal, state, and local governments. The partners in this unique System are: (a) The Extension Service at the U.S. Department of Agriculture, (b) Extension professionals at land-grant universities throughout the United States and its territories; and (c) Extension professionals in nearly all of the Nation's 3,150 counties.

Thousands of paraprofessionals and nearly 3 million volunteers support this partnership and magnify its impact. Strong linkages with both public and private external groups are also part of the Extension System.

Base Programs are the major educational efforts central to the mission of the System and common to most Extension units. They are the ongoing priority efforts of the System, involving many discipline-based and multi-disciplinary programs. The system's base programs are the foundation of the Extension organization.

National initiatives are the system's commitment to respond to important societal problems of broad national concern with additional resources and significantly increased effort to achieve a major impact on national priorities. They are the current most significant and complex issues on which the Extension System has the potential to make a difference-- usually in cooperation with other agencies, groups and units of government.

Extension funds are provided to the States through formula grants and competitively awarded programs. Smith-Lever 3b and 3c funds and payments to the 1890 colleges and Tuskeegee University provide funds to support the Extension infrastructure. Funds for designated programs provide support for the System to address identified priority issues.

Initiatives proposed in 1995 include funding for: sustainable agriculture education programs; expansion of food safety activities; increased efforts on pest management; support for a Pesticide Applicator Training program, and enhancement of the Rural Health Project in Mississippi.

JUSTIFICATION OF INCREASE/DECREASE

(1) An increase of $2,000,000 for the Integrated Pest Management Program. ($8,459,000 million available for FY 1994).

Need for Change. During the past two decades, the Cooperative Extension System (CES) has established strong Integrated Pest Management (IPM) programs in each State and territory of the United States. Every CES IPM program strives to educate users of pesticides about the economic and environmental benefits of an IPM approach to pest management. The goals of these programs are to 1) minimize the impact of agriculture on the environment, and 2) maintain the profitability and international competitiveness of U.S. agriculture. The critical issues of water quality, endangered species, food safety, and farm worker safety are important elements of CES IPM programs. CES programs also educate homeowners and urban pest control professionals about IPM strategies for the lawn, garden, home and commercial structures.

Environmental and economic pressures have increased the incentives for U.S. agricultural producers to adopt IPM strategies. Increasingly, U.S. agriculture is moving towards the use of more complex "biologically intensive" IPM strategies that rely heavily on biological control organisms and other non-chemical management alternatives. However, CES cannot currently provide the intensive educational programs that are needed to increase adoption of biologically intensive IPM strategies.

It is essential that CES begin training the IPM personnel that are needed to implement these systems. We are on the threshold of a new era in pest management systems. However, the promise of biologically intensive pest management technologies will not be realized without the concurrent development of a strong extension education system capable of transferring these technologies to agricultural producers and other end-users. CES must improve its capability to provide the IPM extension education programs that are needed to successfully implement biologically intensive IPM strategies and to realize our goal of a sustainable agricultural industry in the United States.

Nature of Change. Federal support for CES IPM programs is more important now than ever before. Agricultural and urban users of pesticides must be educated about environmentally-sound pesticide use and learn how to manage pests with non-chemical alternatives. Increased fiscal 1995 funding will permit CES to:

- Increase IPM educational programs that focus on the reduction or elimination of unnecessary pesticide applications to fruits, vegetables, and field crops. Develop and apply IPM methods to address new and emerging pest and disease threats such as Late Blight fungus on potatoes.

- Increase incorporation of biological control, host resistance, cultural management techniques into IPM education programs.

- Develop a core national training program to educate private crop consultants, agri-chemical and fertilizer dealers, elevator operators, state and county extension staff, staff from other government agencies, and agricultural producers about biologically intensive IPM principles and strategies.

- Develop new IPM delivery techniques that will improve the capability of CES staff to educate U.S. agricultural producers and urban residents about IPM strategies.

- Conduct national evaluations that document the economic and environmental benefits of IPM so that this information can be used to demonstrate the advantages of IPM to U.S. agricultural producers.

- Increase urban IPM programs that educate homeowners, commercial turf and ornamental pest control operators, institutional managers responsible for turf and

ornamental pest management, and commercial growers and dealers of turf and ornamental plants about IPM strategies.

This requested IPM funding increase will be distributed to States and Territories by formula (+$1.750 million) and competitively through projects (+250,000) that address issues of greatest regional and national concern. The funding of the six territories will be increased $20,000 annually. The remaining increase will be divided equally among the fifty states.

(2) A decrease of $2,000,000 for the Farm Safety and Rural Health program under Section 3(d) of the Smith-Lever Act. ($2,988,000 available in FY 1994).

Need for Change. Emergency care and response is an important rural health concern. Most rural and farm family members are not sure of procedures to follow if they arrive first on a farm accident scene. Many victims are discovered by family members or farm workers who must be able to act quickly and effectively to save the victim without injuring themselves. There are numerous farm accident situations which emergency medical or rescue personnel may confront with little prior experience or training. Many of these situations can readily become hazardous to the rescuer. Cases have occurred in which emergency personnel have been injured or killed while attempting to carry out a rescue or provide treatment to an injured person on a farm.

Nature of Change. Funding for the AgriAbility project is not being requested. The focus of the Farm Safety program will be shifted to providing funds for project proposals in targeted farm safety programs, with the objective of limiting exposure to occupational hazards and for awarding project proposals to train emergency rescue professionals in farm accident extrication procedures and educate nonprofessionals in first-on-the-scene emergency response procedures. These programs are crucial to reducing the risk of injury to the rescuer, reducing the severity of the injury to the accident victim, and reinforcing the value of accident prevention.

(3) An increase of $2,000,000 for the Pesticide Applicator Training program. (No funds available in FY 1994).

Need for Change. The Pesticide Applicator Training (PAT) program offers an opportunity for Extension to reach non- traditional as well as traditional audiences. It also affects partnerships in the truest sense, building coalitions with federal and state agencies and serving diverse clientele ranging from individual producers and applicators to agricultural service organizations and commodity groups. Training of pesticide applicators transcends typical programs; it has an active and supportive clientele from urban and rural audiences. PAT complements the Integrated Pest Management program. With an increase in the number of pesticide users requiring training and certification to use restricted use pesticides and more regulatory action at both the state and federal level the need to support training is ever more apparent.

The Pesticide Applicator Training program functions not only to train applicators but also serves to inform clientele on related regulatory concerns such as groundwater, endangered species, and worker protection. It has functioned well on the national level and offers a base from which to build related programs.

Today's agricultural producer and urban pesticide applicator\user is faced with almost daily regulatory impacts on pesticides and their uses. It is imperative that Extension, through the Pesticide Applicator Training program provide that impartial base for information and training. Pesticide Coordinators nationwide are faced with an increasing demand for training and educational materials, as a result of increasing regulatory activities from both the federal and state levels.

Nature of Change. Additional funding will provide staffing support for Pesticide Applicator Training within the State Extension Services to develop educational materials from a regional and sometimes national perspective. Innovative delivery systems will be

demand for training and educational materials, as a result of increasing regulatory activities from both the federal and state levels.

Nature of Change. Additional funding will provide staffing support for Pesticide Applicator Training within the State Extension Services to develop educational materials from a regional and sometimes national perspective. Innovative delivery systems will be stressed, such as long distance education, auto-tutorial and train the trainer programs. Coordination with EPA will continue for special projects and program evaluations.

(4) An increase of $1,000,000 for Food Safety Programs under Section 3(d) of the Smith-Lever Act ($1,975,000 available in FY 1994).

Need for Change. The Cooperative Extension System (CES) has historically had a food safety emphasis in educational programs across the food chain. For four years, Food Safety and Quality has been a specific high priority area for Extension. The recently developed FSIS-led Pathogen Reduction Program recognizes CES's role in education and has identified the Agency as a cooperator for achieving specific goals, especially in pre-harvest pathogen reduction programs and education of food handlers and consumers. This complements the current CES priority areas of minimizing risks of foodborne illness through improper handling; reducing foodborne hazards in production and processing environments; and increasing understanding of food-related risks and risk management.

Nature of Change. The increase is requested to allow additional work in support of the FSIS-led USDA Pathogen Reduction Program, especially in pre-harvest pathogen reduction and education of food handlers and consumers. Increased funds will be distributed through a project proposal process focused to:

(1) Facilitate interagency cooperation on applied research and educational pilot programs across the food chain which address goals in the area.

(2) Expand efforts to effectively address current issues such as aquatic food safety, E. coli and other foodborne pathogens.

(3) Develop, implement, and evaluate multidisciplinary, interagency programs in food handler training, risk management and public policy education, and quality management programs for producers and processors, such as HACCP or Total Quality Management (TQM).

(4) Support continuation and expansion of the Food Animal Residue Avoidance Databank.

(5) An increase of $2,000,000 for Sustainable Agriculture Systems under Section 3(d) of the Smith-Lever Act ($2,963,000 available in FY 1994).

Need for Change. The U.S. agriculture sector faces major challenges in maintaining economic competitiveness while concurrently assuring responsiveness to growing societal concerns of agricultural production practices and the environment. The public and private sectors have supported research to improve economic competitiveness of the agriculture sector, develop alternate crops and new uses, and environment enhancing technologies, methods and practices. These investments have resulted in, and will continue to provide, improved technologies and production methods. The agriculture community and rural America need new environmentally sound technologies, new resource conserving crops and new uses, and production practices efficiently integrated into holistic farming and ranching systems. The goal of this effort is the successful integration of new environmentally sound technologies, new resource conserving crops and new uses into holistic farming and ranching systems. In order to achieve this objective, consistent with environmentally sound approaches and societal expectations, careful analysis, training of agricultural professionals and improved site specific decision-making must take place. This will require development of training programs, improved systems for efficient access to research results, decision support systems and validation applied research demonstrations.

Nature of the Change. Smith-Lever 3(d) funding for sustainable agriculture programs was initially provided in the FY 1994 Appropriations for Extension Service. Those funds were used to address the activities described in Chapter 3 of Subtitle B of the FACT Act of 1990 to provide education and training for Cooperative Extension Service agents and other professionals involved in the education and transfer of technical information concerning sustainable agriculture.

While the base funds of $2.9 million will continue to go towards Chapter 3 activities, the increase of $2.0 million is requested to address integrated management systems reflected in Chapter 2 of Subtitle B. Funds would be used to provide opportunities for the State Extension Services to illustrate specific technologies, practices, new crops and new uses and production systems integration into holistic farming and ranching operations. Efforts would be made to further develop comprehensive databases and decision support systems. Funds would be distributed on a project proposal merit basis.

(6) A decrease of $1,500,000 to eliminate funding in Rural Technology Grants. ($1,500,000 available in FY 1994).

Need for Change. These grants are proposed for elimination. State and local governments and private sources could use non-Federal resources to continue high priority aspects of these projects.

Nature of Change. This proposal will eliminate specifically earmarked funding for Rural Technology Grants.

(7) An increase of $250,000 for the Rural Health and Safety Education Program under PL 101-624. ($2,000,000 available in FY 1994).

Need for Change. Rural residents face numerous obstacles to maintaining their health status. A major concern is the shortage of health care professionals. This increase will enhance the ongoing rural health project in Mississippi focusing on training health care professionals in rural areas.

Nature of Change. The increased funds will expand the ongoing rural health and safety program in Mississippi to train health care professionals. The program is being conducted by the Cooperative Extension System and the Community Colleges within the State.

(8) A net decrease of $5,891,000 for Federal Administration and Coordination (direct line) ($11,187,000 available in FY 1994).

| Project | 1994 | Inc/Dec | 1995 |
|---|---|---|---|
| Technology Transfer (OK/MS) | $ 331,000 | -$331,000 | -- |
| Rural Development (NE) | 400,000 | -400,000 | -- |
| Rural Development (NM) | 230,000 | -230,000 | -- |
| Rural Development (OK) | 300,000 | -300,000 | -- |
| Chinch Bug/Russian Wheat Aphid (NE) | 67,000 | -67,000 | -- |
| Cranberry Development (ME) | 50,000 | -50,000 | -- |
| Rural Center/HIV (IN) | 250,000 | -250,000 | -- |
| Satellite Downlink (PA) | 125,000 | -125,000 | -- |
| Pilot Technology (WI) | 165,000 | -165,000 | -- |
| Crop Simulation Projects (MS) | 498,000 | -498,000 | -- |
| Rural Rehabilitation Projects (GA) | 250,000 | -250,000 | -- |
| Presque Island (ME) | 187,000 | -187,000 | -- |
| Income Enhancement (OH) | 250,000 | -250,000 | -- |
| Beef Producers (AR) | 200,000 | -200,000 | -- |
| Integrated Cow/Calf Mgmt. (IA) | 250,000 | -250,000 | -- |
| Delta Teachers Academy | 2,000,000 | -2,000,000 | -- |
| Extension Specialist (AR) | 100,000 | -100,000 | -- |
| Subtotal | 5,653,000 | -5,653,000 | -- |
| Base, Federal Administration | 5,534,000 | -250,000 | 5,284,000 |
| Ag. In the Classroom | -- | +208,000 | 208,000 |
| Pay Raise | -- | +140,000 | 140,000 |
| Maintain Administrative Expenses | -- | +59,000 | 59,000 |
| Reduction in Staff Funding | -- | -250,000 | -250,000 |
| Reduction in Administrative Overhead | -- | -145,000 | -145,000 |
| TOTAL | $11,187,000 | -$5,891,000 | $5,296,000 |

(a) A decrease of $5,653,000 for Special Projects ($5,653,000 available in FY 1994).

Need for Change. These projects are proposed for elimination. Each of these earmarked special projects could be considered for financing within the priorities of the respective States.

Nature of Change. This proposal will eliminate earmarked funding support for these projects.

(b) An increase of $208,000 to provide for the transfer of the Agriculture in the Classroom program from the Cooperative State Research Service to the Extension Service.

(c) An increase of $140,000 for the FY 1995 pay raise.

(d) A decrease of $441,000 for a reduction in Federal employment costs.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, ES is reducing employment from the FY 1993 base by 5 percent.

Nature of Change. Streamlining of USDA's research and education programs will lead to program and administrative management efficiencies. These efficiencies provide an opportunity to reduce the staff year ceiling for Extension while continuing to provide National program planning and coordination in partnership with the States. Savings will be achieved through the planned consolidation of administrative and program planning staffs under the Agricultural Research and Education Service.

Consistent with government wide goals, there will be reductions at grades GS-14 and above and efforts will be made to reduce the ratio of supervisors to employees. To achieve the reduction, ES will streamline its operation. The total reduction in personnel costs amounts to $191,000.

(e) A decrease of $145,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $145,000.

Nature of Change. In order to achieve these savings, ES will reduce discretionary expenses by $145,000 in FY 1995, in areas such as travel, supplies and equipment.

EXTENSION SERVICE
Geographic Breakdown of Obligations
1993 and Estimated 1994 and 1995
(Amount in 000s)

| State/Territory | FY 1993 Actual Obligations | Estimated Obligations FY 1994 | FY 1995 |
|---|---|---|---|
| Alabama | 12,698 | 12,535 | 12,516 |
| Alaska | 1,716 | 1,385 | 1,366 |
| Arizona | 3,443 | 2,743 | 2,724 |
| Arkansas | 9,469 | 8,925 | 8,906 |
| California | 11,769 | 10,805 | 10,786 |
| Colorado | 4,149 | 3,660 | 3,641 |
| Connecticut | 3,302 | 2,598 | 2,579 |
| Delaware | 2,584 | 2,333 | 2,314 |
| Florida | 9,137 | 8,478 | 8,459 |
| Georgia | 13,093 | 12,474 | 12,455 |
| Hawaii | 2,474 | 1,674 | 1,655 |
| Idaho | 3,754 | 3,143 | 3,124 |
| Illinois | 12,486 | 11,659 | 11,640 |
| Indiana | 10,134 | 9,678 | 9,659 |
| Iowa | 12,461 | 10,233 | 10,214 |
| Kansas | 7,597 | 6,384 | 6,365 |
| Kentucky | 13,488 | 13,124 | 13,105 |
| Louisiana | 9,354 | 8,992 | 8,973 |
| Maine | 3,131 | 2,705 | 2,686 |
| Maryland | 6,020 | 5,553 | 5,534 |
| Massachusetts | 4,010 | 3,658 | 3,639 |
| Michigan | 11,125 | 10,490 | 10,471 |
| Minnesota | 11,771 | 9,759 | 9,740 |
| Mississippi | 14,121 | 10,770 | 10,751 |
| Missouri | 13,921 | 12,407 | 12,388 |
| Montana | 3,430 | 2,947 | 2,928 |
| Nebraska | 7,417 | 5,664 | 5,645 |
| Nevada | 1,749 | 1,471 | 1,452 |
| New Hampshire | 2,141 | 1,933 | 1,914 |
| New Jersey | 4,457 | 3,928 | 3,909 |
| New Mexico | 3,264 | 2,753 | 2,734 |
| New York | 13,400 | 11,754 | 11,735 |
| North Carolina | 17,960 | 17,182 | 17,163 |
| North Dakota | 5,670 | 3,987 | 3,968 |
| Ohio | 12,756 | 12,154 | 12,135 |
| Oklahoma | 9,077 | 8,185 | 8,166 |
| Oregon | 5,048 | 4,525 | 4,506 |
| Pennsylvania | 12,664 | 12,568 | 12,549 |
| Rhode Island | 1,718 | 1,442 | 1,423 |
| South Carolina | 9,378 | 8,968 | 8,949 |
| South Dakota | 4,391 | 3,885 | 3,866 |
| Tennessee | 13,422 | 12,958 | 12,939 |
| Texas | 20,919 | 20,347 | 20,328 |
| Utah | 2,386 | 2,172 | 2,153 |
| Vermont | 2,511 | 2,047 | 2,028 |
| Virginia | 11,269 | 10,939 | 10,920 |
| Washington | 5,928 | 4,965 | 4,946 |
| West Virginia | 5,245 | 5,033 | 5,014 |
| Wisconsin | 10,607 | 9,440 | 9,421 |
| Wyoming | 2,079 | 1,819 | 1,800 |
| American Samoa | 554 | 933 | 933 |
| Guam | 1,097 | 990 | 990 |
| Micronesia | 594 | 994 | 994 |
| Northern Mariana Islands | 679 | 920 | 920 |
| Puerto Rico | 8,064 | 8,001 | 7,982 |
| Virgin Islands | 934 | 964 | 964 |
| District of Columbia | 883 | 984 | 984 |
| Sub–Total | 408,898 | 373,017 | 372,048 |
| To be allocated: | | | |
| Earmarked Efforts | 5,466 | 43,377 | 42,443 |
| FERS | 0 | 4,000 | 4,000 |
| Federal Administration | 13,212 | 14,188 | 13,950 |
| Unobligated Balance | 850 | 0 | 0 |
| Total | 428,428 | 434,582 | 432,441 |

TABLE II
APPROPRIATION FOR PAYMENT TO STATES
BASIS OF ALLOTMENT AND MATCHING REQUIRED
FISCAL YEAR 1995

| ITEM | TOTAL ESTIMATE 1995 | ALLOTMENT | | AMOUNT PAID W/O MATCHING | AMOUNT REQUIRED MATCHING |
|---|---|---|---|---|---|
| Smith-Lever Act: | 272,582,000 | | | | |
| Section 3(b) | | 56,475,091 | - fixed by Sec 3b PL 87-749 | 14,513,808 | 41,961,283 |
| | | 1,544,909 | | | 1,544,909 |
| Section 3(c) | | (178,832,000) | | 8,021,280 | 170,810,720 |
| | | 68,524,288 | - farm population | | |
| | | 68,524,288 | - rural population | | |
| | | 34,762,144 | - equality | | |
| | | 7,021,280 | - federal administration & coordination Section 3c.1 | | |
| Fed Employees Retirement System | | 4,000,000 | - Fed'l contribution | 4,000,000 | -- |
| Retirement & Employee's Injury Compensation | | 15,252,000 | - Fed'l contribution | 15,252,000 | -- |
| Penalty Mail | | 15,453,000 | - Reim. to USPS | 15,453,000 | -- |
| D.C. | | (1,025,000) | | | |
| | | 41,000 | - Fed'l Admin. | 41,000 | 984,000 |
| | | 984,000 | - Univ. of DC | | |
| Section 3(d) | 114,378,000 | 61,174,440 | - EFNEP | 61,431,000 | -- |
| | | 256,560 | - Fed'l Admin. | | |
| | | 10,459,000 | - IPM | 10,459,000 | -- |
| | | 11,234,000 | - Water Quality | 5,441,000 | 5,793,000 |
| | | 3,363,000 | - PIA | 3,363,000 | -- |
| | | 10,000,000 | - YAR | 1,400,000 | 8,600,000 |
| | | 2,975,000 | - Food Safety | -- | 2,975,000 |
| | | 4,265,000 | - Nutr. Education | 2,217,800 | 2,047,200 |
| | | 988,000 | - Farm Safety | 988,000 | -- |
| | | 950,000 | - Rural Dev. Centers | 950,000 | -- |
| | | 4,963,000 | - Sustainable Agr. | 4,963,000 | -- |
| | | 2,000,000 | - Pesticide Applicator Training | 2,000,000 | -- |
| | | 1,750,000 | - Indian Reservation | 1,750,000 | -- |
| Title XIV, Food/Ag Act 1977, as amended, 1890 Colleges | 25,472,000 | (25,472,000) | | 25,472,000 | -- |
| | | 1,018,880 | - Fed'l Admin. | | |
| | | 24,453,120 | - To 1890 Colleges & Tuskegee | | |
| Renewable Resources | 3,341,000 | 3,341,000 | | 3,341,000 | -- |
| 1890 Facilities | 7,901,000 | 7,584,960 | - To 1890 Colleges & Tuskegee | 7,901,000 | -- |
| | | 316,040 | - Fed'l Admin. | | |
| Rural Health | 2,250,000 | 2,250,000 | | 2,250,000 | -- |
| Ag. Telecommunication | 1,221,000 | 1,221,000 | | | 1,221,000 |
| SUBTOTAL | 427,145,000 | 427,145,000 | | 191,207,888 | 235,937,112 |
| Fed'l Admin. | 5,296,000 | | | | |
| Total FY - 1995 | 432,441,000 | | | | |

## APPROPRIATION FOR PAYMENTS TO STATES
### STATE ALLOTMENTS, FY 1993 - 1995

| Smith-Lever Act: Section 3(b) & 3(c) | FY 1993 | FY 1994 | FY 1995 |
|---|---|---|---|
| Alabama | 5,636,834 | 5,805,256 | 5,805,256 |
| Alaska | 845,660 | 886,640 | 886,640 |
| American Samoa | 717,072 | 749,294 | 749,294 |
| Arizona | 1,476,703 | 1,537,818 | 1,537,818 |
| Arkansas | 4,762,714 | 4,907,418 | 4,907,418 |
| California | 5,895,722 | 6,175,349 | 6,175,349 |
| Colorado | 2,312,488 | 2,413,375 | 2,413,375 |
| Connecticut | 1,738,548 | 1,810,424 | 1,810,424 |
| Delaware | 998,270 | 1,043,941 | 1,043,941 |
| Florida | 3,450,980 | 3,628,944 | 3,628,944 |
| Georgia | 6,355,612 | 6,584,170 | 6,584,170 |
| Guam | 756,380 | 792,117 | 792,117 |
| Hawaii | 1,048,762 | 1,091,144 | 1,091,144 |
| Idaho | 2,097,753 | 2,190,315 | 2,190,315 |
| Illinois | 7,720,646 | 8,026,515 | 8,026,515 |
| Indiana | 6,969,925 | 7,269,252 | 7,269,252 |
| Iowa | 7,409,129 | 7,722,157 | 7,722,157 |
| Kansas | 4,309,696 | 4,475,526 | 4,475,526 |
| Kentucky | 7,298,298 | 7,576,252 | 7,576,252 |
| Louisiana | 4,224,710 | 4,362,714 | 4,362,714 |
| Maine | 1,744,080 | 1,820,683 | 1,820,683 |
| Maryland | 2,632,927 | 2,739,838 | 2,739,838 |
| Massachusetts | 2,171,721 | 2,261,255 | 2,261,255 |
| Michigan | 7,023,309 | 7,306,445 | 7,306,445 |
| Micronesia | 780,202 | 818,886 | 818,886 |
| Minnesota | 6,916,025 | 7,198,800 | 7,198,800 |
| Mississippi | 5,817,172 | 5,970,004 | 5,970,004 |
| Missouri | 6,839,245 | 7,112,959 | 7,112,959 |
| Montana | 1,959,508 | 2,050,152 | 2,050,152 |
| Nebraska | 3,913,028 | 4,074,770 | 4,074,770 |
| Nevada | 855,334 | 897,443 | 897,443 |
| New Hampshire | 1,256,100 | 1,320,603 | 1,320,603 |
| New Jersey | 2,136,250 | 2,225,867 | 2,225,867 |
| New Mexico | 1,580,263 | 1,645,827 | 1,645,827 |
| New York | 6,591,726 | 6,846,207 | 6,846,207 |
| North Carolina | 9,551,043 | 9,860,694 | 9,860,694 |
| North Dakota | 2,700,219 | 2,799,211 | 2,799,211 |
| Northern Mariana Islands | 696,166 | 728,978 | 728,978 |
| Ohio | 8,484,494 | 8,839,690 | 8,839,690 |
| Oklahoma | 4,329,311 | 4,486,739 | 4,486,739 |
| Oregon | 2,765,481 | 2,900,988 | 2,900,988 |
| Pennsylvania | 8,260,107 | 8,591,742 | 8,591,742 |
| Puerto Rico | 5,863,606 | 5,964,056 | 5,964,056 |
| Rhode Island | 845,300 | 884,161 | 884,161 |
| South Carolina | 4,637,762 | 4,795,717 | 4,795,717 |
| South Dakota | 2,797,866 | 2,913,384 | 2,913,384 |
| Tennessee | 6,972,188 | 7,202,755 | 7,202,755 |
| Texas | 9,738,128 | 10,116,991 | 10,116,991 |
| Utah | 1,291,529 | 1,344,112 | 1,344,112 |
| Vermont | 1,385,231 | 1,446,435 | 1,446,435 |
| Virgin Islands | 737,207 | 771,077 | 771,077 |
| Virginia | 5,788,162 | 5,990,874 | 5,990,874 |
| Washington | 3,264,718 | 3,409,527 | 3,409,527 |
| West Virginia | 3,362,734 | 3,475,538 | 3,475,538 |
| Wisconsin | 6,910,173 | 7,201,609 | 7,201,609 |
| Wyoming | 1,170,394 | 1,223,173 | 1,223,173 |
| Sub - Total | 219,794,611 | 228,285,811 | 228,285,811 |
| 3(b) Special Needs | 1,544,909 | 1,544,909 | 1,544,909 |
| 3(c) Fed'l Admin | 6,667,480 | 7,021,280 | 7,021,280 |
| Total | 228,007,000 | 236,852,000 | 236,852,000 |
| Retirement | 15,252,000 | 15,252,000 | 15,252,000 |
| Penalty Mail | 15,453,000 | 15,453,000 | 15,453,000 |
| FERS | 4,000,000 | 4,000,000 | 4,000,000 |
| Dist. of Columbia | -- | 984,000 | 984,000 |
| Fed'l Admin. | -- | 41,000 | 41,000 |
| TOTALS | 262,712,000 | 272,582,000 | 272,582,000 |

## APPROPRIATION FOR PAYMENTS TO STATES
## PESTICIDE IMPACT ASSESSMENT, FY 1993 - 1995

| Smith-Lever Act: Section 3(d) | FY 1993 | FY 1994 | FY 1995 |
|---|---|---|---|
| Alabama | 25,677 | 28,627 | 28,627 |
| Alaska | 10,204 | 10,204 | 10,204 |
| American Samoa | 10,000 | 10,000 | 10,000 |
| Arizona | 26,207 | 28,604 | 28,604 |
| Arkansas | 32,679 | 41,344 | 41,344 |
| California | 107,020 | 87,110 | 87,110 |
| Colorado | 28,218 | 25,084 | 25,084 |
| Connecticut | 11,725 | 11,725 | 11,725 |
| Delaware | 21,563 | 21,009 | 21,009 |
| Florida | 48,853 | 62,680 | 62,680 |
| Georgia | 47,566 | 67,107 | 67,107 |
| Guam | 10,383 | 10,383 | 10,383 |
| Hawaii | 12,357 | 12,357 | 12,357 |
| Idaho | 36,075 | 26,305 | 26,305 |
| Illinois | 55,550 | 75,460 | 75,460 |
| Indiana | 37,760 | 37,576 | 37,576 |
| Iowa | 70,239 | 57,518 | 57,518 |
| Kansas | 47,012 | 43,693 | 43,693 |
| Kentucky | 41,687 | 38,369 | 38,369 |
| Louisiana | 31,060 | 27,558 | 27,558 |
| Maine | 12,555 | 12,555 | 12,555 |
| Maryland | 16,312 | 19,262 | 19,262 |
| Massachusetts | 15,365 | 15,181 | 15,181 |
| Michigan | 34,362 | 31,044 | 31,044 |
| Micronesia | 10,000 | 10,000 | 10,000 |
| Minnesota | 53,527 | 55,923 | 55,923 |
| Mississippi | 27,523 | 24,389 | 24,389 |
| Missouri | 44,576 | 44,492 | 44,492 |
| Montana | 21,248 | 18,114 | 18,114 |
| Nebraska | 66,919 | 50,696 | 50,696 |
| Nevada | 11,069 | 11,069 | 11,069 |
| New Hampshire | 20,391 | 10,989 | 10,989 |
| New Jersey | 22,524 | 30,819 | 30,819 |
| New Mexico | 15,967 | 15,967 | 15,967 |
| New York | 27,673 | 30,438 | 30,438 |
| North Carolina | 40,669 | 37,351 | 37,351 |
| North Dakota | 25,773 | 28,538 | 28,538 |
| Northern Mariana Islands | 10,001 | 10,002 | 10,002 |
| Ohio | 41,833 | 41,464 | 41,464 |
| Oklahoma | 41,560 | 43,956 | 43,956 |
| Oregon | 28,777 | 31,357 | 31,357 |
| Pennsylvania | 29,374 | 41,173 | 41,173 |
| Puerto Rico | 18,056 | 14,922 | 14,922 |
| Rhode Island | 10,352 | 10,352 | 10,352 |
| South Carolina | 21,020 | 20,835 | 20,835 |
| South Dakota | 36,866 | 30,229 | 30,229 |
| Tennessee | 36,307 | 36,123 | 36,123 |
| Texas | 88,966 | 90,625 | 90,625 |
| Utah | 14,352 | 14,352 | 14,352 |
| Vermont | 12,425 | 12,425 | 12,425 |
| Virgin Islands | 10,007 | 10,007 | 10,007 |
| Virginia | 24,290 | 27,240 | 27,240 |
| Washington | 28,947 | 40,561 | 40,561 |
| West Virginia | 14,521 | 14,521 | 14,521 |
| Wisconsin | 67,221 | 56,713 | 56,713 |
| Wyoming | 16,737 | 13,603 | 13,603 |
| Sub - Total | 1,730,000 | 1,730,000 | 1,730,000 |
| Special Projects | 1,675,000 | 1,633,000 | 1,633,000 |
| Total | 3,405,000 | 3,363,000 | 3,363,000 |

## APPROPRIATION FOR PAYMENTS TO STATES
## INTEGRATED PEST MANAGEMENT, FY 1993 - 1995

| Smith-Lever Act: Section 3(d) | FY 1993 | FY 1994 | FY 1995 |
|---|---|---|---|
| Alabama | 243,941 | 243,941 | 243,941 |
| Alaska | 42,900 | 42,900 | 42,900 |
| American Samoa | 11,000 | 11,000 | 11,000 |
| Arizona | 87,000 | 87,000 | 87,000 |
| Arkansas | 263,243 | 263,243 | 263,243 |
| California | 253,100 | 253,100 | 253,100 |
| Colorado | 87,000 | 87,000 | 87,000 |
| Connecticut | 55,000 | 55,000 | 55,000 |
| Delaware | 55,000 | 55,000 | 55,000 |
| Florida | 155,200 | 155,200 | 155,200 |
| Georgia | 332,610 | 332,610 | 332,610 |
| Guam | 11,000 | 11,000 | 11,000 |
| Hawaii | 55,000 | 55,000 | 55,000 |
| Idaho | 87,000 | 87,000 | 87,000 |
| Illinois | 253,100 | 253,100 | 253,100 |
| Indiana | 190,400 | 190,400 | 190,400 |
| Iowa | 253,100 | 253,100 | 253,100 |
| Kansas | 155,200 | 155,200 | 155,200 |
| Kentucky | 87,000 | 87,000 | 87,000 |
| Louisiana | 271,600 | 271,600 | 271,600 |
| Maine | 87,000 | 87,000 | 87,000 |
| Maryland | 87,000 | 87,000 | 87,000 |
| Massachusetts | 87,000 | 87,000 | 87,000 |
| Michigan | 155,200 | 155,200 | 155,200 |
| Micronesia | 11,000 | 11,000 | 11,000 |
| Minnesota | 221,200 | 221,200 | 221,200 |
| Mississippi | 325,902 | 325,902 | 325,902 |
| Missouri | 229,489 | 229,489 | 229,489 |
| Montana | 87,000 | 87,000 | 87,000 |
| Nebraska | 221,200 | 221,200 | 221,200 |
| Nevada | 42,900 | 42,900 | 42,900 |
| New Hampshire | 55,000 | 55,000 | 55,000 |
| New Jersey | 87,000 | 87,000 | 87,000 |
| New Mexico | 55,000 | 55,000 | 55,000 |
| New York | 121,100 | 121,100 | 121,100 |
| North Carolina | 237,541 | 237,541 | 237,541 |
| North Dakota | 87,000 | 87,000 | 87,000 |
| Northern Mariana Islands | 11,000 | 11,000 | 11,000 |
| Ohio | 221,200 | 221,200 | 221,200 |
| Oklahoma | 230,900 | 230,900 | 230,900 |
| Oregon | 121,100 | 121,100 | 121,100 |
| Pennsylvania | 121,100 | 121,100 | 121,100 |
| Puerto Rico | 36,300 | 36,300 | 36,300 |
| Rhode Island | 42,900 | 42,900 | 42,900 |
| South Carolina | 209,965 | 209,965 | 209,965 |
| South Dakota | 87,000 | 87,000 | 87,000 |
| Tennessee | 191,079 | 191,079 | 191,079 |
| Texas | 632,730 | 632,730 | 632,730 |
| Utah | 55,000 | 55,000 | 55,000 |
| Vermont | 42,900 | 42,900 | 42,900 |
| Virgin Islands | 11,000 | 11,000 | 11,000 |
| Virginia | 121,100 | 121,100 | 121,100 |
| Washington | 121,100 | 121,100 | 121,100 |
| West Virginia | 42,900 | 42,900 | 42,900 |
| Wisconsin | 155,200 | 155,200 | 155,200 |
| Wyoming | 55,000 | 55,000 | 55,000 |
| Sub - Total | 7,656,400 | 7,656,400 | 7,656,400 |
| Special Projects | 543,600 | 802,600 | 2,802,600 |
| Total | 8,200,000 | 8,459,000 | 10,459,000 |

## APPROPRIATION FOR PAYMENTS TO STATES
## FARM SAFETY, FY 1993 - 1995

| Smith-Lever Act: Section 3(d) | FY 1993 | FY 1994 | FY 1995 |
|---|---|---|---|
| Alabama | 19,019 | 19,019 | 0 |
| Alaska | 19,020 | 19,020 | 0 |
| American Samoa | 0 | 0 | 0 |
| Arizona | 19,020 | 19,020 | 0 |
| Arkansas | 19,020 | 19,020 | 0 |
| California | 19,019 | 19,019 | 0 |
| Colorado | 19,020 | 19,020 | 0 |
| Connecticut | 19,020 | 19,020 | 0 |
| Delaware | 19,020 | 19,020 | 0 |
| Florida | 19,020 | 19,020 | 0 |
| Georgia | 19,019 | 19,019 | 0 |
| Guam | 0 | 0 | 0 |
| Hawaii | 19,019 | 19,019 | 0 |
| Idaho | 19,020 | 19,020 | 0 |
| Illinois | 19,020 | 19,020 | 0 |
| Indiana | 19,020 | 19,020 | 0 |
| Iowa | 19,019 | 19,019 | 0 |
| Kansas | 19,019 | 19,019 | 0 |
| Kentucky | 19,019 | 19,019 | 0 |
| Louisiana | 19,019 | 19,019 | 0 |
| Maine | 19,020 | 19,020 | 0 |
| Maryland | 19,020 | 19,020 | 0 |
| Massachusetts | 19,019 | 19,019 | 0 |
| Michigan | 19,019 | 19,019 | 0 |
| Micronesia | 0 | 0 | 0 |
| Minnesota | 19,019 | 19,019 | 0 |
| Mississippi | 19,019 | 19,019 | 0 |
| Missouri | 19,019 | 19,019 | 0 |
| Montana | 19,020 | 19,020 | 0 |
| Nebraska | 19,020 | 19,020 | 0 |
| Nevada | 19,020 | 19,020 | 0 |
| New Hampshire | 19,020 | 19,020 | 0 |
| New Jersey | 19,020 | 19,020 | 0 |
| New Mexico | 19,020 | 19,020 | 0 |
| New York | 19,019 | 19,019 | 0 |
| North Carolina | 19,019 | 19,019 | 0 |
| North Dakota | 19,020 | 19,020 | 0 |
| Northern Mariana Islands | 0 | 0 | 0 |
| Ohio | 19,019 | 19,019 | 0 |
| Oklahoma | 19,020 | 19,020 | 0 |
| Oregon | 19,020 | 19,020 | 0 |
| Pennsylvania | 19,020 | 19,020 | 0 |
| Puerto Rico | 19,020 | 19,020 | 0 |
| Rhode Island | 19,020 | 19,020 | 0 |
| South Carolina | 19,020 | 19,020 | 0 |
| South Dakota | 19,020 | 19,020 | 0 |
| Tennessee | 19,019 | 19,019 | 0 |
| Texas | 19,019 | 19,019 | 0 |
| Utah | 19,020 | 19,020 | 0 |
| Vermont | 19,020 | 19,020 | 0 |
| Virgin Islands | 0 | 0 | 0 |
| Virginia | 19,019 | 19,019 | 0 |
| Washington | 19,020 | 19,020 | 0 |
| West Virginia | 19,020 | 19,020 | 0 |
| Wisconsin | 19,019 | 19,019 | 0 |
| Wyoming | 19,020 | 19,020 | 0 |
| Sub - Total | 970,000 | 970,000 | 0 |
| Special Projects | 1,500,000 | 2,018,000 | 988,000 |
| Total | 2,470,000 | 2,988,000 | 988,000 |

## APPROPRIATION FOR PAYMENTS TO STATES
## FOOD AND NUTRITION EDUCATION, FY 1993 - 1995

| Smith-Lever Act: Section 3(d) | FY 1993 | FY 1994 | FY 1995 |
|---|---|---|---|
| Alabama | 1,959,269 | 1,977,500 | 1,977,500 |
| Alaska | 172,555 | 176,269 | 176,269 |
| American Samoa | 63,041 | 64,987 | 64,987 |
| Arizona | 559,425 | 574,169 | 574,169 |
| Arkansas | 1,248,919 | 1,260,851 | 1,260,851 |
| California | 3,306,089 | 3,395,214 | 3,395,214 |
| Colorado | 554,712 | 565,273 | 565,273 |
| Connecticut | 452,897 | 459,486 | 459,486 |
| Delaware | 220,669 | 223,582 | 223,582 |
| Florida | 2,028,220 | 2,068,590 | 2,068,590 |
| Georgia | 2,133,095 | 2,156,102 | 2,156,102 |
| Guam | 63,260 | 65,138 | 65,138 |
| Hawaii | 256,769 | 260,478 | 260,478 |
| Idaho | 291,144 | 296,020 | 296,020 |
| Illinois | 2,121,138 | 2,153,018 | 2,153,018 |
| Indiana | 1,193,997 | 1,209,572 | 1,209,572 |
| Iowa | 895,041 | 904,166 | 904,166 |
| Kansas | 689,151 | 697,451 | 697,451 |
| Kentucky | 1,646,822 | 1,664,057 | 1,664,057 |
| Louisiana | 1,858,178 | 1,881,187 | 1,881,187 |
| Maine | 418,454 | 423,229 | 423,229 |
| Maryland | 838,473 | 848,948 | 848,948 |
| Massachusetts | 967,105 | 980,998 | 980,998 |
| Michigan | 1,769,438 | 1,798,079 | 1,798,079 |
| Micronesia | 69,682 | 72,588 | 72,588 |
| Minnesota | 985,888 | 997,906 | 997,906 |
| Mississippi | 1,694,371 | 1,710,137 | 1,710,137 |
| Missouri | 1,540,243 | 1,557,620 | 1,557,620 |
| Montana | 295,429 | 299,992 | 299,992 |
| Nebraska | 534,622 | 540,490 | 540,490 |
| Nevada | 170,861 | 175,381 | 175,381 |
| New Hampshire | 237,247 | 240,540 | 240,540 |
| New Jersey | 1,068,054 | 1,082,997 | 1,082,997 |
| New Mexico | 506,066 | 514,663 | 514,663 |
| New York | 3,394,059 | 3,447,124 | 3,447,124 |
| North Carolina | 2,495,823 | 2,517,550 | 2,517,550 |
| North Dakota | 341,536 | 345,251 | 345,251 |
| Northern Mariana Islands | 61,297 | 63,180 | 63,180 |
| Ohio | 2,178,542 | 2,210,726 | 2,210,726 |
| Oklahoma | 1,043,512 | 1,057,218 | 1,057,218 |
| Oregon | 491,618 | 501,514 | 501,514 |
| Pennsylvania | 2,674,542 | 2,706,429 | 2,706,429 |
| Puerto Rico | 1,434,538 | 1,470,457 | 1,470,457 |
| Rhode Island | 301,382 | 305,135 | 305,135 |
| South Carolina | 1,508,390 | 1,522,310 | 1,522,310 |
| South Dakota | 385,718 | 389,846 | 389,846 |
| Tennessee | 1,958,079 | 1,977,278 | 1,977,278 |
| Texas | 4,167,402 | 4,238,109 | 4,238,109 |
| Utah | 307,368 | 313,783 | 313,783 |
| Vermont | 233,258 | 236,165 | 236,165 |
| Virgin Islands | 62,065 | 63,885 | 63,885 |
| Virginia | 1,672,785 | 1,689,026 | 1,689,026 |
| Washington | 676,743 | 690,711 | 690,711 |
| West Virginia | 966,995 | 976,565 | 976,565 |
| Wisconsin | 951,069 | 965,005 | 965,005 |
| Wyoming | 187,635 | 190,495 | 190,495 |
| Sub - Total | 60,304,680 | 61,174,440 | 61,174,440 |
| Fed'l Admin | 220,320 | 256,560 | 256,560 |
| Total | 60,525,000 | 61,431,000 | 61,431,000 |

## APPROPRIATION FOR PAYMENTS TO THE 1890 LAND-GRANT COLLEGES AND TUSKEGEE UNIVERSITY, 1993 - 1995

| INSTITUTIONS | FY 1993 | FY1994 | FY1995 |
|---|---|---|---|
| Alabama | | | |
| Alabama A&M University | 1,274,488 | 1,310,487 | 1,310,487 |
| Tuskegee University | 1,274,488 | 1,310,487 | 1,310,487 |
| Arkansas | | | |
| University of Arkansas,Pine Bluff | 1,152,100 | 1,183,922 | 1,183,922 |
| Delaware | | | |
| Delaware State University | 416,484 | 427,929 | 427,929 |
| Florida | | | |
| Florida A&M University | 1,061,531 | 1,098,811 | 1,098,811 |
| Georgia | | | |
| The Fort Valley State College | 1,528,392 | 1,576,218 | 1,576,218 |
| Kentucky | | | |
| Kentucky State University | 1,913,376 | 1,973,939 | 1,973,939 |
| Louisiana | | | |
| Southern University and A&M College | 1,057,358 | 1,087,032 | 1,087,032 |
| Maryland | | | |
| The University of Maryland, Eastern Shore | 811,485 | 835,170 | 835,170 |
| Mississippi | | | |
| Alcorn State University | 1,261,610 | 1,294,632 | 1,294,632 |
| Missouri | | | |
| Lincoln University | 1,912,073 | 1,972,090 | 1,972,090 |
| North Carolina | | | |
| North Carolina A&T State University | 2,288,585 | 2,352,703 | 2,352,703 |
| Oklahoma | | | |
| Langston University | 1,144,629 | 1,179,540 | 1,179,540 |
| South Carolina | | | |
| South Carolina State University | 1,111,690 | 1,145,349 | 1,145,349 |
| Tennessee | | | |
| Tennessee State University | 1,728,786 | 1,778,219 | 1,778,219 |
| Texas | | | |
| Prarie View A&M University | 2,346,393 | 2,426,150 | 2,426,150 |
| Virginia | | | |
| Virginia State University | 1,457,332 | 1,500,442 | 1,500,442 |
| Sub-Total | 23,740,800 | 24,453,120 | 24,453,120 |
| Federal Administration | 989,200 | 1,018,880 | 1,018,880 |
| Total | 24,730,000 | 25,472,000 | 25,472,000 |

**APPROPRIATION FOR PAYMENTS TO STATES**
**1890 FACILITIES, 1993 - 1995**

| FACT ACT, Section 1447: | FY 1993 | FY1994 | FY1995 |
|---|---|---|---|
| Alabama | | | |
| Alabama A&M University | 427,902 | 422,607 | 422,607 |
| Tuskegee University | 427,902 | 422,607 | 422,607 |
| Arkansas | | | |
| University of Arkansas,Pine Bluff | 411,011 | 405,926 | 405,926 |
| Delaware | | | |
| Delaware State University | 328,626 | 324,560 | 324,560 |
| Florida | | | |
| Florida A&M University | 433,080 | 427,721 | 427,721 |
| Georgia | | | |
| The Fort Valley State College | 475,719 | 469,833 | 469,833 |
| Kentucky | | | |
| Kentucky State University | 527,216 | 520,692 | 520,692 |
| Louisiana | | | |
| Southern University and A&M College | 402,328 | 397,350 | 397,350 |
| Maryland | | | |
| The University of Maryland, Eastern Shore | 378,113 | 373,433 | 373,433 |
| Mississippi | | | |
| Alcorn State University | 415,862 | 410,717 | 410,717 |
| Missouri | | | |
| Lincoln University | 525,008 | 518,512 | 518,512 |
| North Carolina | | | |
| North Carolina A&T State University | 541,590 | 534,886 | 534,886 |
| Oklahoma | | | |
| Langston University | 423,505 | 418,263 | 418,263 |
| South Carolina | | | |
| South Carolina State University | 418,443 | 413,265 | 413,265 |
| Tennessee | | | |
| Tennessee State University | 482,216 | 476,248 | 476,248 |
| Texas | | | |
| Prarie View A&M University | 604,822 | 597,336 | 597,336 |
| Virginia | | | |
| Virginia State University | 456,657 | 451,004 | 451,004 |
| Sub-Total | 7,680,000 | 7,584,960 | 7,584,960 |
| Federal Administration | 320,000 | 316,040 | 316,040 |
| Total | 8,000,000 | 7,901,000 | 7,901,000 |

## STATUS OF PROGRAM
## EXTENSION SERVICE

The Cooperative Extension System, a national educational network, is a dynamic organization pledged to meeting the country's needs for knowledge and educational programs that will enable people to make practical decisions. Its mission is to help people improve their lives through an educational process that uses scientific knowledge focused on issues and needs.

Extension programs effectively reach diverse segments of society including agricultural producers, renewable resource managers, businesses, families, youth, and communities. Extension informs program participants of recommended practices and educates program participants to obtain, understand, and apply relevant information in deciding how to lead their lives and pursue their livelihoods.

Last year over 40 million Americans living in nearly all the Nation's 3,150 counties received practical education through direct contacts with Extension professionals or paraprofessionals. Each year Extension agents work with nearly 3 million volunteers who, in turn, contact about 48 million other adults and youth, a national study finds. Individual Extension educators average nearly 5,300 direct contacts annually, plus many times that communications, and other means.

Through these contacts, Extension program participants benefit by acquiring new understandings and skills and by adopting improved practices and technologies toward achieving their respective goals, e.g., increased income, family stability, and personal adjustment. These new understandings, skills, and adoptions also result in public benefits. Such public benefits include saving millions of dollars nationally by preventing or reducing the incidence of school dropout, drug addiction, farm accidents, low birth weight, and contamination of food and water supplies. As a county commissioner in Indiana said recently, "If our Extension program prevents just five low birth weight babies in a year, it will save more than the $185,000 that the county spent this year on the entire Extension program."

### Programs Addressing Recent National Concerns

**Floods**: The Cooperative Extension System has implemented a major educational effort to assist people and communities adversely impacted by excessive rainfall and flooding during the Summer of 1993. These educational programs are conducted by State Cooperative Extension Services, and aided by a $3.5 million Congressional appropriation for victims of flooding and other disasters in 1993. From this amount, $2.9 million was awarded to the nine Midwestern States of Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin.

Extension staff are responding to the broad needs of the community by providing information and access to resources from USDA and State Land Grant Institutions. These efforts bear directly on the problems created by flooding and adverse weather. Extension personnel are operating from "centers" staffed and located to meet specific needs. They are cooperating with other agencies including ASCS, SCS and FEMA. Efforts to pool resources and information across State lines are also taking place. Assistance is focused on immediate needs with recognition that planning for restoration of fields and structures, and for financial recovery will occur over a longer period of time. Initially, Extension efforts targeted immediate problems by providing hot lines, fact sheets and other information services that reduced stress, aided reentry to homes, promoted access to safe water and food, aided clean-up activities and assisted with applications for disaster relief. During this entire disaster, Extension's computer and telecommunications capabilities have provided information and education to residents and staff in a fast, efficient, and economical manner.

Current activities are focusing on meeting short-term financial needs, alternate sources of support, and restoration of farm operations and community viability. Considerable effort is devoted to restoration of livestock facilities and testing of feedstuffs. Through flood-response centers, Extension staff and volunteers are assisting families with further clean-up, protection of property, assessment of financial status and acquisition of additional support, and management of emotional stress. Youth are enrolled in projects that are aiding clean-up, restoring community structures, providing child care and mutual support.

**Drought**: Many States in the southeast have been adversely effected by the drought in 1993. Many farmers and their families are under financial and physical stress. To assist the farm community, the Cooperative Extension System has initiated programs that offer in-service training for Extension personnel, and collaborative programming with other government agencies to address the needs and concerns of area farmers, farm youth, and families. Further, funds are being allocated to States such as Georgia, North Carolina and Virginia to assist farmers and farm families with educational programs and personal assistance on farm and financial management, family resource and stress management, management alternatives to crop and livestock producers for recovery and relief in their farming operations, and development of strategies and educational programs for producers to help them minimize the effect of future adverse weather conditions which may occur at various times during the year on their farming operations. Additionally, another program is being developed for bankers and other agribusiness firms to help farm clientele who need assistance.

**E. Coli**: In response to the E. coli outbreak, the Extension rapid response system was an important mechanism for notifying States of the time-sensitive information. This electronic-based communication system allows States to be prepared with educational messages for public inquiries and to take advantage of opportunities for education. The System was used to disseminate news of the outbreak, FSIS-USDA news releases, backgrounders and consumer recommendations, Departmental testimony, and Senate testimony of various CES specialists throughout January and February, 1993. Many states can now route the electronic messages immediately to county offices. Washington Extension faculty with related expertise worked together to get out a backgrounder on E. coli that was also disseminated nationwide immediately after the outbreaks.

Many ongoing Extension food safety programs address safe food handling recommendations and processes that address the concerns of E. coli as well as all microbiological/pathogen issues. Under the leadership of Colorado, the Safety & Food Excellence (SAFE) program is training volunteers and Extension agents in 8 western States to deliver a safe food handling curriculum to groups or agencies that serve foods to elderly persons and others with weakened immune systems. Many States are involved in HACCP education programs for meat, poultry and other food industry that include control of microbiological hazards.

Other programs that began in September, 1993 include that of Texas, who will be providing education for meat market food handlers in three metropolitan areas in the state. Washington Cooperative Service is establishing the statewide FOODLINK, a vehicle for inter-agency coordination for food handler education, consumer education, and food safety emergency responses. The comprehensive information communication system (FOODLINK) will initially link Washington State University Cooperative Extension; Washington state agencies including the Department of Health, Department for Agriculture, and Department for Community Development (Office of Emergency Management); USDA Food Safety and Inspection Service Area Office (Salem, OR); and representatives of the food industry including the Washington Food Dealers Association and the Restaurant Association of Washington. It will provide internet linkages between these stakeholders as well as establish SAFEFOOD, a public mail group reflector, to allow participants to ask questions and receive answers about food safety. It will also broaden access to food safety education specialists world wide. A second private mail group reflector, WASHLINK, will be established for communication between educators and agencies in Washington state. FOODLINK will also provide, through the WSU domain, access to NorthWest Net. This will enable inter-agency participants to retrieve documents and access national bibliographic reference databases such as Medline and ERIC.

## Programs Impacting Food, Agricultural, and Natural Resource Needs

At least five national Extension programs educate agricultural producers and related audiences to safeguard the food supply and minimize environmental harm while fostering agricultural productivity. First, the National Extension Sustainable Agriculture Initiative embraces several approaches--low input, organic, diversified, regenerative--to balancing short-and long-term economic, environmental, and food safety factors in production agriculture. The magnitude of Extension sustainable agriculture programs is exemplified by Tennessee Agricultural Extension Service activities in 1992: over 400 educational events promoting consideration of sustainable agriculture reached approximately 15,000 people,

including farmers, agribusiness operators, and consumers. An example of Extension sustainable agriculture programming is the delivery of improved weather information to farmers.

This can reduce the untimely use of water, pesticides, and fertilizers and thus increase agricultural production and profits as well as safeguard both the food supply and the environment. Extension and the State Agricultural Experiment Stations conduct Sustainable Agriculture Research and Education (SARE) programs in more than 35 states.

Second, every state Extension Service commits resources to Integrated Pest Management (IPM) programs. In 1990, Extension IPM programs trained 11,000 IPM scouts and over 45,000 agricultural producers. As a result, Extension directly influenced pest management strategies used by 150,000 agricultural producers on 11 million acres of cropland. In 1991, New York Cooperative Extension reported results of one of its IPM programs with 147 growers raising fruit crops on 2,260 acres. Program participants reduced levels of application of pesticides by 40 percent on strawberries, 30 percent on apples, and 15 percent on grapes for a total reduction in application 28,000 lbs. of pesticide product. A study conducted in 16 states found that the users of IPM report higher net returns than non-users due primarily to obtaining higher crop yields. This evaluation also found that nearly two-thirds of private IPM consultants reported that Extension was for them a primary source of research-based information on integrated pest management.

Third, all state Extension Services conduct water quality programs as part of the National Extension Water Quality Initiative. Extension water quality programs influence agricultural producers, households, and public policy leaders as well as the public in general to adopt practices that can reduce the risk of contaminating surface and ground water. For example, corn producers participating in Extension Water Quality programs have reduced their annual use of commercial nitrogen fertilizer without affecting crop yields. By 1990, application rates of nitrogen fertilizer by participating producers averaged about 30 pounds per acre less than in the mid-1980s. For a Midwestern corn producing farm of 300-350 acres, this reduction in fertilizer use translates into savings of approximately $1,000 per year. The total savings in Iowa from reduced nitrogen fertilizer applied to its more than 12 million acres of corn is approximately $60 million annually.

Extrapolating these Iowa savings to the national corn acreage of over 60 million acres suggests that Extension programs helps American farmers save approximately $300 million dollars annually through reduced fertilizer costs to corn alone.

An independent analysis of changes in U.S. agricultural productivity, by the Economic Growth Center at Yale University, over the period 1950-1982 documents Extension's contributions in terms of cost/benefit ratios. An additional investment of one dollar in crop-oriented Extension programs was found to result in an increase of $5.90 to $8.62 in the value of crops sold. An additional investment of one dollar in livestock-oriented Extension programs was found to result in an increase of $4.60 to $5.80 in the value of livestock sold.

During the financial crisis experienced by major portions of the farm sector in the mid-1980's, Extension conducted intensive Farm Financial Planning and Management (FPM) programs nationally. A national sample of the total of 480,000 agricultural producers who participated in these mid-1980's programs was surveyed to ascertain the results of their participation. Responses to this survey were received from 4,268 producers. These respondents estimated that their individual farm profits increased by $20,000, on average, due to their program participation within the period 1984-1988. The 4,269 respondents in the study perceived improvement in profit totaling approximately 84 million dollars. While statistical limitations prevent generalizing these results to the nearly one-half million participants in this Extension program, the findings suggest that the increase in producers' net income over the period 1984-1988 totaled into the billions of dollars. This increased income is partly explained by the fact that when approximately half the nation's farms had negative net income and ten percent of farmers were leaving farming, nearly 83 percent of the participants in Extension farm financial planning programs had no difficulty obtaining credit.

The national Farm Safety program began in 1975, and since that time Extension has trained over 17,000 professionals in farm accident extrication procedures, and trained nonprofessionals in first-on-

the-scene emergency response procedures. These programs reduce the severity of the injury to the accident victim and the risk of injury to the rescuer, and also emphasize the value of accident prevention.

In response to the Renewable Resources Extension Act, Extension instructs private landowners and public land managers on conservation techniques, tree improvement, and financial analysis. Extension provides approximately 600 staff years of natural resource programming annually. This effort, over FY 1989-91, resulted in the following accomplishments nationally:

- o 1,200,000 private non-industrial forest landowners contacts;
- o 50 million acres of improved forest land management;
- o $670 million increased revenue from forestry and wildlife management practices;
- o 23,000 forest industry worker assists;
- o $28 million in savings through improved forest industry efficiency;
- o continuing education training for 68,000 natural resource professionals; and
- o 62,000,000 acres of rangeland positively impacted.

Extension Wood Products programs are exemplified by New Hampshire Extension's assistance to provide firms in grade and lumber recovery. One assisted firm reduced losses from lumber stain by $250,000. A biomass energy firm saved $375,000 per year through better fuel management. Another firm saved $400,000 through better drying and process control.

Extension Wildlife Management programs influence the management of over 100 million acres of privately owned wildlife habitats. This influence is effected by educating natural resource professionals, managers, and private landowners on the topics of habitat management, wetlands, and damage prevention and control, and endangered species protection and management.

## Programs Impacting Family, Community and Businesses Needs

Teaching basic principles in its national Food Safety program, and in coordination with the Food Safety Inspection Service, Extension annually answers approximately 6 million telephone inquiries, reaches 45 to 50 million consumers through the media, distributes several million fact sheets, and reaches 10 million individuals through workshops and other direct contacts. Within 24 hours of the 1993 outbreak of E.coli in the State of Washington, Extension's electronic mail Rapid Response system alerted state Extension Services to the occurrence of the emergency. Educational materials were mailed later that same week.

In the past three years, the national Expanded Food and Nutrition Education Program (EFNEP) has emphasized reaching low income pregnant and parenting teens and adults through state programs such as "Have a Healthy Baby" (Indiana), "Great Beginnings" (New Hampshire), and "Teen-age Mothers" (Georgia). Preliminary evaluations show improvements in birth weights of babies through improved health practices of participating mothers. For FY 1991, EFNEP funding increased by about 3 percent. In turn, the number of families participating in EFNEP increased by 12 percent (232,178 versus 206,657 in FY 90) and the number of participating youth increased by 11 percent (482,586 versus 434,823 in FY 90).

Extension Family Financial Management programs are illustrated by an Illinois program that taught more than 15,000 homemakers how to complete tax returns. Approximately two-thirds of the program participants had annual incomes of less than $6,000. Program participants received more that $10.5 million in tax refunds and earned income credits in 1991. The average tax refund per participating family was $600. This is just one example of how a Family Financial Management program can allow citizens to become more responsible for their own welfare.

To reduce academic, physical, social, and emotional problems among children, Extension provided Parent Education programs to over 530,000 adults in 22 states during 1990.

In all regions of the Nation, Extension's Waste Management programs provide information and technical assistance to local officials and individuals on dealing with the problems of increased waste

volume and closing landfills. In Massachusetts, where 26 rural towns were faced with skyrocketing disposal costs and restricted budgets, Extension led in forming a 50-member planning board that spearheaded the development of the largest solid waste district in the state. Extension education is reducing the solid waste stream. In Montgomery County, Ohio, for example, the 40,000 tons of grass clippings collected in 1989 were reduced to 15,000 tons in 1990, saving the county $650,000 in trash disposal costs. In Florida, as a result of an innovative Extension program, blue crab waste is mixed with wood processing wastes to form a rich compost product, reducing the amount of crab waste entering landfills by 13 tons daily.

Extension Industry Development programs are exemplified by Cornell University, in New York, that has a research and Cooperative Extension program to help industries adopt new technologies and conduct in-house training of business employees. Some 4,000 businesses have been counseled, 2,000 jobs were created due to expanding businesses, and energy audits of 21,000 firms served to conserve energy. Several other states have similar Extension programs.

Exemplifying Extension Rural Development program results, more that 1,200 low-income people over age 55 gained employment as a result of training provided by Maine Cooperative Extension. This program was supported by a grant from the National Council on the Aging.

## Programs Impacting Youth Needs

Nearly one fifth of total Extension staff time is devoted to 4-H Development with about 5.6 million participating youth. A national survey of the alumni of youth organizations showed that, in comparison with former members of other youth organizations, former 4-H'ers were more likely to report adult-life benefits from knowledge and skills gained through their participation; and 4-H'ers are more likely to be active in community affairs and leadership positions.

In 1991, Extension involved 1.2 million youth in natural resource and environmental education programs focusing on wildlife habitat, stream protection and enhancement, threatened and endangered species, recycling, energy conservation, water and air quality, forestry, range management, and soil conservation. Around the country, 4-H Clubs have won local, state, and national awards for adopt-a-stream and adopt-a-highway project to enhance our environment.

Extension Youth at Risk (YAR) programs at 95 sites across the Nation annually involve a total of nearly 70,000 youth and 16,000 parents. An independent evaluation finds that "for a relatively small amount of money, YAR programs have enriched the lives of a number of children and their families in diverse areas of the country." The city of Boston has requested that Extension establish at least 22 4-H clubs in 11 inner-city neighborhoods. Annually, USDA has provided up to $10 million in Federal funds to YAR programs. The state Cooperative Extension Services and local communities have provided a match equal to allocated Federal funds; and additionally, the private sector has provided approximately $10 million to support YAR programs over the three years of this national Extension initiative.

## Programming through Extension Volunteers

Extension agents average 15 percent of their worktime developing the leadership skills of program participants and volunteers. Each year Extension agents guide, and support nearly 3 million Extension volunteers who, in turn, transfer information to and educate about 48 million other adults and youth, a national study funds. Approximately 95 percent of Extension clientele say that volunteers helped them acquire new information, and 87 percent report that volunteers helped them develop new skills.

Extension volunteers work with Extension program participants about 51 days, on average, for everyday an Extension professional invests in training, guiding and supporting volunteers. Nationally, the financial value of volunteer time contributed is 5 times greater than the financial value of combined Federal, state and local funding to Extension programs.

# NATIONAL AGRICULTURAL LIBRARY

## Purpose Statement

The mission of the National Agricultural Library (NAL) was outlined by the Organic Act of 1862, which established the Department of Agriculture. The act, as amended, sets forth a mission, "to acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture, rural development, aquaculture and human nutrition, in the most comprehensive and general sense of the word," and placed upon the Secretary the responsibility to "procure and preserve all information concerning agriculture, rural development, aquaculture, and human nutrition, which he can obtain by means of books."

NAL serves as the Nation's chief agricultural information resource. It provides agricultural information products and services through traditional library functions and through modern electronic dissemination to agencies of the USDA, public and private organizations, and individuals. NAL coordinates a national network of public and private libraries consisting of the land-grant colleges and universities, other state supported colleges and universities with agriculturally-related programs, other public organizations, industry, and other private sector organizations. The NAL provides a leadership role in U.S. participation in international agricultural library and information systems and in efforts to promote worldwide availability of agricultural information.

NAL has as its ultimate purpose facilitating access to and use of information about agriculture and related sciences by all those who need the information. In addition to providing traditional library services such as bibliographies, reference services and document delivery to agricultural scientists and researchers, NAL is expanding its role and serving a wider audience by using modern information dissemination technology to its fullest. The Library emphasizes service to the agricultural community, which includes Federal, State, and private researchers, scientists and administrators; agricultural extension and education personnel; farmers and businessmen; public and private associations and institutions; and the general public.

With approximately 2.1 million volumes of printed material on agriculture and supporting scientific disciplines, NAL has one of the largest collections of its kind in the world. Primarily current, but also historical information is collected and organized for effective utilization by a wide range of users, and is cataloged or indexed in AGRICOLA, the NAL database of over 3 million citations to agricultural publications. NAL also provides extensive input of U.S. publication records to AGRIS, the cooperative agricultural database of the Food and Agriculture Organization of the United Nations.

The principal operations of NAL are located in the NAL Building in Beltsville, Maryland. Specialized reference services are also provided from a reference center in Washington, D.C. Service is provided from both these locations as well as 18 USDA field libraries and 38 smaller USDA centers containing a total of approximately a quarter of a million volumes.

As of September 30, 1993, NAL employment was 202 permanent full time and 29 other than full time employees. With the exception of five employees stationed in Washington, D.C., all are located in Beltsville, Maryland.

In accordance with the proposed reorganization, this agency will be merged into the new Agricultural Research and Education Service.

NATIONAL AGRICULTURAL LIBRARY
Available Funds and Staff-Years
1993 Actual and Estimated, 1994 and 1995

| | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| National Agricultural Library | $17,715,000 | 196 | $18,155,000 | 190 | $19,620,000 | 190 |
| Obligations under other USDA appropriation: | | | | | | |
| Agricultural Marketing Service: | | | | | | |
| Space in NAL Building... | 14,719 | --- | 17,680 | --- | 17,680 | --- |
| Postage..... | 2,000 | --- | 1,460 | --- | 2,000 | --- |
| Current Awareness Literature Service.... | 4,066 | --- | 3,652 | --- | 3,650 | --- |
| Dun & Bradstreet..... | 1,336 | --- | 1,447 | --- | 1,500 | --- |
| Agricultural Research Service: | | | | | | |
| Plant Genome Data & Information Center.... | 1,470,000 | 10 | 1,710,195 | 10 | 1,700,000 | 10 |
| Computer Room Support... | 126,646 | --- | 132,737 | --- | 133,000 | --- |
| Subscriptions Costs..... | 10,868 | --- | 10,868 | --- | 11,000 | --- |
| Evaluation Study-Electronic Info..... | 100,000 | --- | --- | --- | --- | --- |
| Evaluation Study-Food Irradiation..... | 50,000 | --- | --- | --- | --- | --- |
| Aquaculture Guide..... | 8,000 | --- | --- | --- | --- | --- |
| AGRICOLA Indexing..... | 2,500 | --- | --- | --- | --- | --- |
| Current Awareness Literature Service.... | 579,814 | 4 | 594,407 | 4 | 595,000 | 4 |
| Agriculture Stabilization and Conservation Service: | | | | | | |
| Dun & Bradstreet ..... | 565 | --- | 2,770 | --- | 2,770 | --- |
| Animal & Plant Health Inspection Service: | | | | | | |
| Current Awareness Literature Service.... | 33,703 | --- | 33,428 | --- | 34,000 | --- |
| Cooperative State Research Service: | | | | | | |
| Computer Room Support... | 9,234 | --- | 10,234 | --- | 10,234 | --- |
| Dun & Bradstreet..... | 1,613 | --- | 1,496 | --- | 1,500 | --- |
| Aquaculture Info..... | 15,000 | --- | --- | --- | --- | --- |
| Postage & Mail Service... | 5,700 | --- | 4,100 | --- | 4,100 | --- |
| Space in NAL Building... | 20,499 | --- | 20,499 | --- | 20,500 | --- |
| National Biological Impact Assessment Program..... | 18,500 | 1 | 18,500 | 1 | 18,500 | 1 |
| Alternative Farming Information Center.... | 134,000 | 1 | 110,000 | 1 | 110,000 | 1 |
| Extension Service: | | | | | | |
| Current Awareness Literature Service.... | 14,830 | --- | 14,642 | --- | 14,700 | --- |
| Youth 4-H Info. Ctr..... | 70,000 | 1 | 82,000 | 1 | 82,000 | 1 |
| Aquaculture Info..... | 3,500 | --- | 3,500 | --- | 3,500 | --- |
| Food and Nutrition Service: | | | | | | |
| Lending Service..... | 110,000 | --- | 110,000 | --- | 110,000 | --- |

NATIONAL AGRICULTURAL LIBRARY
Available Funds and Staff-Years
1993 Actual and Estimated, 1994 and 1995

| | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Year |
| Foreign Agricultural Service: | | | | | | |
| Dun & Bradstreet..... | 3,440 | --- | 3,874 | --- | 3,874 | --- |
| Forest Service: | | | | | | |
| Current Awareness Literature Service... | 11,253 | --- | 11,810 | --- | 11,810 | --- |
| Dun & Bradstreet..... | 647 | --- | 255 | --- | 255 | --- |
| Indexing Service..... | 45,465 | 1 | --- | --- | --- | --- |
| Rural Info. Center..... | 10,000 | --- | --- | --- | --- | --- |
| Food Safety & Inspection Service: | | | | | | |
| Current Awareness Literature Service... | 8,645 | --- | 8,825 | --- | 8,825 | --- |
| Food Irradiation..... | 15,000 | --- | --- | --- | --- | --- |
| National Exchange for Food Labeling..... | --- | --- | 12,000 | --- | 12,000 | --- |
| Human Nutrition Information Service: | | --- | | | | |
| Current Awareness Literature Service... | 9,784 | | 9,305 | --- | 9,305 | --- |
| National Finance Center: | | --- | | | | |
| Dun & Bradstreet..... | 2,549 | | 1,788 | --- | 1,790 | --- |
| Office of International Cooperation and Development: | | --- | | | | |
| Assist Baltic Republic. | 3,000 | | 3,000 | --- | --- | --- |
| Assist Lithuanian Librarians..... | 450 | --- | 450 | --- | --- | --- |
| Assist Egypt Library... | 7,960 | | --- | --- | --- | --- |
| Office of the Inspector General: | | --- | | | | |
| Dun & Bradstreet..... | 2,108 | | 2,814 | --- | 2,815 | --- |
| Packers and Stockyards Administration: | | --- | | | | |
| Dun & Bradstreet..... | 759 | | 890 | --- | 890 | --- |
| Rural Development Administration: | | --- | | | | |
| Rural Information..... | 52,856 | | 56,030 | --- | 56,000 | --- |
| Rural Electrification Administration: | | --- | | | | |
| Dun & Bradstreet..... | 9,494 | | 8,139 | --- | 8,140 | --- |
| Soil Conservation Service: | | --- | | | | |
| Current Awareness Literature Service... | 14,363 | --- | 17,100 | --- | 17,100 | --- |
| Office of Operations: | | | | | | |
| Dun & Bradstreet..... | --- | --- | 754 | --- | 754 | --- |
| Miscellaneous Activities..... | --- | | 266,351 | --- | 277,808 | --- |

NATIONAL AGRICULTURAL LIBRARY
Available Funds and Staff-Years
1993 Actual and Estimated, 1994 and 1995

| | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Total, Other USDA Appropriations..... | 3,004,866 | 18 | 3,287,000 | 17 | 3,287,000 | 17 |
| Total, Agricultural Appropriations..... | 20,719,866 | 213 | 21,442,000 | 207 | 22,907,000 | 207 |
| Other Federal Funds: | | | | | | |
| Department of Commerce, National Oceanic and Atmospheric Administration: | | | | | | |
| Global Warming..... | 5,000 | --- | --- | --- | --- | --- |
| National Technical Information Service: | | | | | | |
| Sale of Photocopies... | 28,000 | --- | 48,000 | --- | 48,000 | --- |
| Department of Defense, Defense Technical Information Center: | | | | | | |
| Global Warming Info... | 2,000 | --- | --- | --- | --- | --- |
| Health and Human Services: | | | | | | |
| Rural Health Information.. | 567,000 | 2 | 265,000 | 2 | 265,000 | 2 |
| Total, Other Federal Funds.. | 602,000 | 2 | 313,000 | 2 | 313,000 | 2 |
| Non-Federal Funds: | | | | | | |
| Catfish Farmers of America: | | | | | | |
| Aquaculture Publication... | 500 | --- | --- | --- | --- | --- |
| Food and Agriculture Organization of the United Nations: | | | | | | |
| Assist Baltic Republics... | 3,000 | --- | --- | --- | --- | --- |
| Dev. of Ag. Thesaurus..... | 50,000 | --- | --- | --- | --- | --- |
| Oregon State University: | | | | | | |
| Directory of Rural Studies, Scholars, and Educators and Rural Studies Bibliography..... | 12,500 | --- | --- | --- | --- | --- |
| University of Mississippi: | | | | | | |
| Food Service Education.... | 43,000 | --- | 43,000 | --- | --- | --- |
| Miscellaneous Contributed Funds..... | --- | --- | 57,000 | --- | 100,000 | --- |
| Total, Non-Federal Funds | 109,000 | --- | 100,000 | --- | 100,000 | --- |
| Total, National Agricultural Library | 21,430,866 | 216 | 21,855,000 | 209 | 23,320,000 | 209 |

UNITED STATES DEPARTMENT OF AGRICULTURE

NATIONAL AGRICULTURAL LIBRARY

PERMANENT POSITIONS BY GRADE AND STAFF-YEAR SUMMARY

1993 and Estimated 1994 and 1995

| GRADE | 1993 | 1994 | 1995 |
|---|---|---|---|
| | HEADQUARTERS | HEADQUARTERS | HEADQUARTERS |
| ES-5 | 1 | 1 | 1 |
| GS/GM-15 | 3 | 3 | 2 |
| GS/GM-14 | 10 | 10 | 10 |
| GS/GM-13 | 26 | 26 | 27 |
| GS-12 | 60 | 59 | 59 |
| GS-11 | 25 | 24 | 24 |
| GS-10 | 1 | 1 | 1 |
| GS-9 | 2 | 2 | 2 |
| GS-8 | 5 | 5 | 5 |
| GS-7 | 33 | 33 | 33 |
| GS-6 | 35 | 35 | 35 |
| GS-5 | 9 | 9 | 9 |
| GS-4 | 3 | 3 | 3 |
| GS-1 | 2 | 2 | 2 |
| Total, Permanent Positions | 215 | 213 | 213 |
| Unfilled Positions, End of Year | -4 | -4 | -4 |
| Total Permanent Employees, End of Year | 211 | 209 | 209 |
| Staff-Years: Ceiling | 216 | 209 | 209 |

NATIONAL AGRICULTURAL LIBRARY

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| Personnel Compensation | | | |
| Headquarters..... | $9,020,000 | $9,164,000 | $9,622,000 |
| 11 Total Personnel Compensation..... | 7,570,000 | 7,711,000 | 8,092,000 |
| 12 Personnel Benefits | 1,445,000 | 1,453,000 | 1,530,000 |
| 13 Benefits for Former Personnel..... | 5,000 | -- | -- |
| Total Pers. Comp. & Benefits..... | 9,020,000 | 9,164,000 | 9,622,000 |
| Other Objects: | | | |
| 21 Travel..... | 145,000 | 150,000 | 150,000 |
| 22 Transportation of Things..... | 74,000 | 50,000 | 50,000 |
| 23 Communications, Utilities and Other Rent..... | 681,000 | 911,000 | 980,000 |
| 24 Printing and Reproduction..... | 245,000 | 100,000 | 100,000 |
| 25 Other Services..... | 3,917,000 | 3,650,000 | 3,635,000 |
| 26 Supplies and Materials..... | 1,863,000 | 950,000 | 960,000 |
| 31 Equipment..... | 824,000 | 2,769,000 | 3,628,000 |
| 41 Grants..... | 895,000 | 462,000 | 495,000 |
| Total Other Objects | 8,644,000 | 9,042,000 | 9,100,000 |
| Total Direct Obligations | 17,644,000 | 18,206,000 | 19,620,000 |
| Position Data: | | | |
| Average Salary, ES Position | $111,800 | $116,529 | $96,830 |
| Average Salary, GS/GM Positions | $35,209 | $37,072 | $38,903 |
| Average Grade GS/GM Positions | 9.7 | 9.7 | 9.7 |

## NATIONAL AGRICULTURAL LIBRARY

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

National Agricultural Library

For necessary expenses of the National Agricultural Library [$18,155,000] $19,620,000: Provided, That this appropriation shall be available for employment pursuant to the second sentence of section 706 (a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed $35,000 shall be available for employment under 5 U.S.C. 3109: Provided further, That not to exceed $900,000 shall be available pursuant to 7 U.S.C. 2250 for the alteration and repair of buildings and improvements [: Provided further, That $462,000 shall be available for a grant pursuant to section 1472 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (7 U.S.C. 3318), in addition to other funds available in this appropriation for grants under this section].

The change deletes language providing funds for a grant under section 1472 which in FY 1994 was made to the Leflar School of Law, University of Arkansas, Fayetteville, Arkansas.

## NATIONAL AGRICULTURAL LIBRARY
## SALARIES AND EXPENSES -- CURRENT LAW

| | |
|---|---|
| Appropriation Act, 1994 | $18,155,000 |
| Budget Estimate, 1995 | 19,620,000 |
| Increase in Appropriation | +1,465,000 |

### SUMMARY OF INCREASES AND DECREASES
(On basis of adjusted appropriation)

| Item of Change | 1994 Estimate | Pay Cost | Other Changes | 1995 Estimate |
|---|---|---|---|---|
| Inflation | -0- | -0- | +$398,000 | $398,000 |
| Document Delivery | -0- | -0- | +281,000 | 281,000 |
| Administrative Overhead Reduction | -0- | -0- | -251,000 | -251,000 |
| Leflar School of Law | $462,000 | -0- | -462,000 | -0- |
| National Storage and Preservation | -0- | -0- | +400,000 | 400,000 |
| Electronic Information | -0- | -0- | +1,000,000 | 1,000,000 |
| All Other | 17,693,000 | +$99,000 | -0- | 17,792,000 |
| Total Available | 18,155,000 | +99,000 | +1,366,000 | 19,620,000 |

### PROJECT STATEMENT- CURRENT LAW
(On basis of adjusted appropriation)

| | 1993 Actual | | 1994 Estimated | | | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Increase or Decrease | Amount | Staff Years |
| 1) Agricultural Library Services for Research & Education | $16,851,000 | 197 | $17,255,000 | 191 | +$1,465,000 (1) | $18,720,000 | 191 |
| 2) Repair & Maintenance of Facility | 813,000 | --- | 900,000 | --- | -0- | 900,000 | --- |
| Unobligated Balance | 51,000 | --- | --- | --- | --- | --- | --- |
| Total Available or Estimate | $17,715,000 | 197 | $18,155,000 | 191 | +$1,465,000 | $19,620,000 | 191 |
| Total, Appropriation | $17,715,000 | 197 | | | | | |

## National Agricultural Library

### Explanation of Programs

The basic function of the National Agricultural Library (NAL) is to identify, acquire, organize, preserve, and disseminate pertinent food and agriculture information to all scientists, researchers, administrators, and others working in agricultural fields in both the government and private sectors. To meet user needs, NAL cooperates with libraries at land-grant universities and other institutions in the development of a network to enhance access to information. NAL also maintains an extensive collection of agricultural publications and provides access to these publications through AGRICOLA, its master bibliographic database. NAL also provides current awareness and retrospective searches on worldwide agricultural literature through other computer-based systems of interest to agricultural scientists and educators.

New technologies and systems of networking that contribute to making it possible for the user to have faster, more sophisticated, and more cost effective access to information are at the forefront of NAL's initiatives.

One essential NAL program involves advanced information technologies. NAL has intensified its efforts to enhance and expand its information-providing capabilities by testing new electronic technologies, including computer-based video technology, and recently developed optical scanning, laser technology, and artificial intelligence software. The NAL staff strives to identify and evaluate these advanced technologies to determine their potential for improving the access and use of agricultural information. As new technologies are applied to specific projects, NAL works to transfer their use to other agricultural organizations, which could benefit from their adoption. Such technologies have great potential for making information more widely available in a more timely way and in greater depth than ever before. Overall, the use of advanced information technology, enables NAL to promote the organization and availability of agricultural information more effectively to the national and international agricultural communities.

To strengthen reference and information services to patrons in particular subject areas, NAL maintains specialized information centers. These information centers provide the capability for NAL to enhance services to current clientele, as well as to develop new service relationships with both public and private sector users. Through a range of outreach and networking activities, the information centers provide a focal point for agricultural topics of importance to the Department of Agriculture, the agricultural community throughout the Nation, and the public. In addition, information center staff concentrate their efforts on strengthening the NAL collection and developing information products. Information centers have a diverse audience including researchers, administrators, educators, consumers, and the private sector. Currently, NAL has information centers on Agricultural Trade and Marketing; Alternative Farming Systems (Low Input/Sustainable Agriculture); Animal Welfare; Aquaculture; Biotechnology; Food and Nutrition; Plant Genome; Rural Development; Technology Transfer; Youth Development; and Water Quality.

As a National Library, NAL serves a dual role as the primary literature source for both USDA and the American agricultural community, as well as the United States' authority among agricultural libraries and information centers internationally. Through cooperation with the National Library of Medicine, NAL also shares national collection responsibilities in the areas of veterinary science, human nutrition, and biotechnology.

National Agricultural Library

Justification of Increases and Decreases

(1) A net increase of $1,465,000 for library services, consisting of the following:

(a) An increase of $398,000 to cover inflation costs of collection development services.

Need for Change: - The cost of providing basic agricultural and scientific information services to NAL's USDA and nationwide patrons continues to rise. NAL's fundamental services to the user community require maintaining a current collection of books and journals and the capability to disseminate information to users through the document delivery services program.

Approximately 80 percent of NAL funds to acquire library materials is used to purchase subscriptions to agricultural and scientific journals. NAL users, including ARS scientists and researchers throughout USDA, rely on these journal publications. This is because journals typically contain the results of the most current scientific investigations. The 1993 U. S. Periodical Price Index study, sponsored by a committee of the American Library Association, indicates that the price of journals in science and technology continues to post higher rates of increase than other broad subject areas. Overall, agriculture, science and technology journals have experienced a 10 percent increase in the average annual subscription price since 1984. The cost of journal subscriptions in the social sciences (e.g., agricultural marketing, agricultural economics) has similarly posted an average increase of 9 percent over the same time period. Journals which cover highly specialized topics, such as biotechnology, have posted subscription price increases as high as 16.8 percent between 1990 and 1991 alone. A conservative projection, then, is that the cost of maintaining NAL journal subscriptions collection will rise by an average of 10 percent in FY 1995 over the FY 1994 prices.

Nature of Change: - In order to maintain the estimated FY 1994 purchasing power, the increase required to cover the rise in the price of journals and books is $398,000.

(b) An increase of $281,000 to cover inflation costs of document delivery services.

Need for Change: User demand for NAL document delivery services continues to increase. NAL's document delivery service program, which includes maintaining the base service, a regional document delivery service for USDA clientele nationwide, and an active interlibrary loan component, also posts significant increases each year. These increases are associated with both the user demands and the labor intensive nature of these services.

In short, the continued success of the nation's agricultural research and investigations depends on NAL's ability to provide users with the latest scientific and agricultural information. This is accomplished by ensuring that the agricultural and scientific information maintained in NAL's collection, cited and indexed in the AGRICOLA database, and disseminated through the document delivery services program, is current and comprehensive.

Nature of Change: In order to maintain the document delivery services program at the FY 1994 service level, NAL will require an additional $281,000. This new funding is essential to ensure the continuance of NAL's fundamental agricultural information services.

(c) A decrease of $251,000 for administrative efficiency.

Need for Change: In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $251,000.

Nature of Change: In order to achieve these savings, NAL will reduce discretionary expenses by $251,000 in FY 1995, in areas such as training and the purchase of supplies and materials.

(d) A decrease of $462,000 for the Leflar School of Law, University of Arkansas ($462,000 available in FY 1994).

This decrease reflects the discontinuation of the funding of a grant to the Agricultural Law Library of the Leflar School at the University of Arkansas.

(e) An increase of $400,000 for National Storage and Preservation (-0- available in FY 1994).

Need for Change: - The preservation of agricultural and scientific information is central to NAL's mission as the USDA library and the principal agricultural information resource for the United States. The National Storage and Preservation Program would direct funding towards this aim by implementing a strategy to effect a transition to effective preservation of information in electronic formats.

The preservation component of this initiative is envisioned as a national cooperative effort, involving NAL, the United States Agricultural Information Network (USAIN), land-grant institutions, and other libraries, societies and archives with important agricultural collections. In a May 1993 report, the USAIN Advisory Panel on Preservation urged NAL to take a lead role in the implementation of a National Preservation Program for Agricultural Literature. The model for this cooperative preservation plan, developed by a team of experts in agricultural information, emphasizes the advancement of optical scanning technologies to preserve the nation's agricultural literature. This national coordinated effort contemplates NAL assuming the lead role in directing preservation efforts towards the transfer of agricultural literature into digital formats, rather than the conservation of the paper volumes.

The National Storage and Preservation Program is based in large measure on a recognition of the budget constraints involved. In this regard, this initiative proposes a practical approach towards preservation of the current NAL collection, while at the same time advancing cooperative strategies for preserving the nation's agricultural literature, and furthering the development of methods to convert existing materials into electronic formats.

Nature of Change: - Funds in the amount of $400,000 will be used to utilize new technologies, such as miniaturization of actual page images of books and journals to preserve and store agricultural information on optical disks. Since it is now widely believed in the information science community that these discs will withstand deterioration for a minimum of 100 years, this technology provides the best potential for preserving the older deteriorated

agricultural and scientific volumes in the NAL collection. Initial efforts will be directed towards transferring valuable journals in the NAL collection into electronic formats before the paper is completely decomposed and unreadable. Thus, the proper "last use" of these fully deteriorated NAL volumes would be the process of transferring their contents into electronic formats.

(f) An increase of $1,000,000 for Electronic Information (-0- available in FY 1994.

Need for Change: - NAL has performed an intensive internal review and analysis of the issues associated with the Agency's ability to manage electronically created and stored information. Based on this review, NAL proposes implementation of this initiative in order to continue its national leadership role -- and its viability -- in the production, management and dissemination of agricultural information. The thrust of the initiative is to implement a program aimed at achieving an effective transition from providing information services using a traditional, print collection to achieving full capacity to provide electronic access to information via the Internet as part of the National Research and Education Network (NREN).

Core to all of the NAL programs has been the creation and advancement of the AGRICOLA database, which since 1970 has been the principal source of agricultural information for practitioners and researchers worldwide. With over 3 million records, AGRICOLA citations and indexing records correspond to the most important agricultural publications from around the world, and is used by the scientists and researchers of ARS, USDA, the land-grant universities and other institutions nationwide.

NAL's current paper-based information document delivery system which furnishes articles cited and indexed in AGRICOLA and other databases, is becoming increasingly inadequate to keep pace with the requirements and computer capabilities of the typical laboratory scientist or policy maker. The spate of information being produced in digital form, coupled with recent telecommunications innovations and the dominance of the Internet, have combined to vastly increase the resources available to agricultural researchers and scientists. Compared to the virtually instant electronic transmission of information via the Internet, the considerable time required to provide information through traditional methods -- involving publishing, procuring, physical handling and document delivery of paper products -- is rapidly rendering the traditional model obsolete. Thus, NAL's need to transition to this already emerging reality termed "library without walls" dictates an immediate shift from providing information services based on printed materials to methods in which NAL will facilitate users in obtaining information electronically.

Nature of Change: - Funding in the amount of $1 million will be used to start-up NAL's Electronic Information Initiative. Funds will be directed to establishing NAL as the central node in an electronic system, providing agricultural information by directly linking users with the information producers.

As a national library, NAL is charged with the duty to manage information, promote standardized formats, repackage essential information for mass distribution, and electronically mediate access to information irrespective of where the data reside. In addition, NAL is an institution with a large user base capable of facilitating USDA research initiatives and enhancing the dissemination of these research results to the world.

These start-up funds will be used to begin to create the infrastructure necessary to ensure that NAL will have the capacity to function in this newly created environment, in which the instantaneous transmission of information worldwide is fast evolving as the standard. The necessary infrastructure includes the design and installation of an internal network fully compatible with the Internet. Library users will be provided with multiple use workstations with the capability to access and process data in a wide variety of electronic formats. Increased computer storage will be acquired to make USDA produced data as well as all agricultural data available electronically. A computer system within NAL will be developed to provide access to critical databases (i.e., AGRICOLA, genome databases, et al.) for use by ARS and USDA patrons, other Federal agencies, the land-grant institutions, farmers, ranchers, consumers and other members of the general public. Primary connectivity will be achieved via the Internet as part of NREN.

Funds will be used as follows:

| | |
|---|---|
| Hardware/Software/Wiring..... | $500,000 |
| Training..... | 25,000 |
| Contract Modifications..... | 25,000 |
| Access, Licenses, Purchases..... | 450,000 |
| Total..... | 1,000,000 |

(g) An increase of $99,000 for Pay Costs.

NATIONAL AGRICULTURAL LIBRARY
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 And Estimated 1994 and 1995

| | 1994 | | 1995 | | 1996 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| District of Columbia.. | $226,432 | 5 | $303,916 | 5 | $325,000 | 5 |
| Maryland..... | 17,437,568 | 192 | 17,851,084 | 186 | 19,295,000 | 186 |
| Subtotal, Available or Estimate..... | 17,664,000 | 197 | 18,155,000 | 191 | 19,620,000 | 191 |
| Unobligated Balance | 51,000 | --- | --- | --- | --- | --- |
| Total, Available for Estimate..... | 17,715,000 | 197 | 18,155,000 | 191 | 19,620,000 | 191 |

# NATIONAL AGRICULTURAL LIBRARY

## Status of Program

The National Agricultural Library (NAL) is one of the most heavily used and largest agricultural libraries and information services in the world, serving as the national resource for the collection and dissemination of information on all aspects of agriculture. NAL serves not only as USDA's departmental library, but also one of three national libraries of the United States (together with the Library of Congress and the National Library of Medicine), fulfilling national and international responsibilities for disseminating agricultural information. Furthermore, NAL coordinates and functions as the primary information resource for a national network of State land-grant university libraries working together to deliver agricultural information to all sectors of the population.

The basic services provided by the Library reflect the national and international nature of its mission. NAL lends books and provides photocopies of documents, responding to approximately 175,000 such requests annually. During FY 1993, AGRICOLA (AGRICultural OnLine Access), NAL's master bibliographic database, increased to more than 3 million computerized citations of books and articles on worldwide agriculture. AGRICOLA is available on magnetic tapes sold through the U.S. Department of Commerce's National Technical Information Service, and can also be accessed nationally and internationally through commercial vendors. The NAL collection, on which AGRICOLA is based, contains books, journals, maps, audiovisuals, and microcomputer software obtained through purchase, gift, and exchange arrangements. Collection development activities, including the acquisition of agricultural and scientific materials in more than 30 languages from 150 countries, represent a major activity of NAL in carrying out its mission.

NAL's general reference units and subject-oriented information centers provide comprehensive reference and referral information services to support USDA policy makers, research and administrative scientists, and other USDA personnel. Reference services are also extended to other Federal and State agencies, Congressional staff, and industry as well as to the general public after local and regional resources have been exhausted.

NAL's 11 specialized information centers continue to meet the growing demand for information on a wide range of topics of vital interest to USDA and the national and international agricultural community. The subject areas covered by these information centers include: agricultural trade and marketing; alternative farming systems (sustainable agriculture); animal welfare; aquaculture; biotechnology; food and nutrition; plant genome; rural development; technology transfer; water quality; and youth development.

### Current Activities

Networking. NAL conducts a national education and training program designed to inform actual and potential users about NAL operations, resources, and services. NAL offers workshops and demonstrations in cooperation with agricultural institutions, and professional and trade organizations across the country. The emphasis in this program is on the use of online bibliographic files and other computer services. Additional services such as briefings, tours, and exhibits are provided for domestic and foreign visitors to NAL.

NAL works closely with library directors at 1890 land-grant and 1862 land-grant universities to enhance access to agricultural information in these universities. Through its role in the Department's initiative to establish centers of excellence in these universities, NAL is working to ensure the development of library collections and services that will support the mission of each center.

In response to the increasing demand for technical information on agriculture, NAL continues to expand its collection development and information access programs through coordination of holdings with and among land-grant universities and through international exchange programs with foreign governments, universities, and research centers. The Library initiates and implements cooperative indexing and cataloging projects with public and private institutions and strengthens agricultural library and information activities nationally through the development and adoption of standardized formats and processing procedures essential for national networking. Ongoing cooperative collection development activities include coordinating the development of comprehensive plans and policies for the acquisition of agricultural literature. Some of this coordination is achieved through negotiated agreements between NAL and the National Library of Medicine, designed to ensure complete coverage while avoiding unnecessary duplication of resources in the fields of veterinary science, nutrition, biotechnology and animal welfare.

New cooperative initiatives underway focus on utilizing and applying state-of-the-art information technology, including the development and enhancement of ISIS, NAL's integrated library system. Innovative approaches to expanding the benefits of improved information services to other USDA information providers are being explored. One such project is aimed at providing online dial-up access to the system at NAL for the Agricultural Research Service (ARS) regional libraries and other research sites. A related effort will permit ARS libraries to include records of their holdings in ISIS. In a related effort, NAL and the USDA Extension Service have issued a CD-ROM containing over 50,000 pages of agricultural information to assist state extension workers. An example of a cooperative pilot project between NAL and the USDA Economic Research Service (ERS) produced a CD-ROM simulation product containing ERS publications.

Information Centers.

Identifying potential and existing audiences, developing products and services to meet their information needs, and providing frequent communication utilizing optimal information technology are the objectives of each information center. Emphasis is placed on outreach and liaison activities with all the various clientele groups interested in that particular subject area. Collaborative efforts with other Federal agencies both within and outside USDA have allowed NAL to greatly expand existing networks to include rural health practitioners, rural elected public officials, school food service managers, nutritionists in the Women, Infants, and Children Supplementary Feeding Program, and educators.

NAL's Information Centers also provide new forums for international networking and information exchange. The databases being developed by the Plant Genome Data and Information Center will be international in scope. Efforts are underway to develop links with similar database efforts in Japan. The Aquaculture Information Center serves as the central information exchange point for Federal agencies and research institutions in Japan and the People's Republic of China.

State Agricultural Publications. NAL and land-grant libraries work cooperatively to provide improved coverage of state agricultural publications. Through their combined efforts, the national and state libraries can collect, process, and provide document delivery services for state cooperative extension service and experiment station publications. The goal of this program is to identify resources for agricultural information as well as to ensure the preservation of these materials for archival purposes. NAL maintains contact with each of the responsible institutions in order to develop a comprehensive collection of these state publications which are cataloged and indexed in AGRICOLA. NAL, Kansas State University (KSU) Library, and the Kansas Cooperative Extension service, plan a demonstration project to expand the scope of this ongoing program and possibly serve as a model for similar projects with other states. The KSU

Library will train extension service staff in cataloging so they may provide so-called "minimal level" catalog records for their publications as they are produced. These records will be enhanced by KSU's Library to include NAL-required additions. The records will then be input into the local library system as well as into AGRICOLA, OCLC (an international bibliographic utility) and ISIS, NAL's local online catalog. Access to these publications will thereby be enhanced and the cooperative extension service staff will have a current, accurate database of the publications which they and the experiment stations produce.

International Networking. NAL engages in a wide range of international activities relating to the worldwide collection and dissemination of information on agriculture and related subjects. NAL's AGRICOLA database is accessible online worldwide, and on CD-ROM from commercial vendors. NAL is the designated U.S. center for AGRIS, the international agricultural information system of the United Nations Food and Agricultural Organization (FAO), and which also provides essential support to the FAO's Aquatic Science and Fisheries Information System. Under an arrangement with the CAB International, NAL is augmenting and updating the CAB Thesaurus, an agricultural vocabulary. A related project to provide more comprehensive access to international agricultural information through an enhanced thesaurus system is being coordinated by NAL in conjunction with CAB International and FAO. It is NAL's policy to promote the indexing of agricultural literature by the originating country, in order to conserve resources by enabling NAL to focus on the indexing of U.S. literature. Jointly with CAB International, NAL produced an International Union List of Agricultural Serials, published in 1990. The CD-ROM version of the World List of Agricultural Serials, from which the International Union List was extracted, was made available in 1992 by SilverPlatter International. This database contains citations to more than 56,000 retrospective and current serial titles with annotations indicating whether the title is indexed in any of the three major agricultural databases: AGRICOLA, CAB Abstracts, and AGRIS. Steps are now being taken to determine the feasibility of creating a union list for key agricultural libraries worldwide based on this database.

Following the intense political and economic evolution in the nations of central and eastern Europe, NAL hosted the first in a series of U.S./Central European Agricultural Library Roundtable meetings to explore the potential for cooperation in the exchange of agricultural information. As a result, NAL and its counterparts in the region have entered into a joint program of cooperation to enhance access to agricultural information by strengthening existing avenues and expanding the use of technologies. With NAL's encouragement, including greater personal and institutional contacts, the exchange of agricultural information with both the People's Republic of China and the Newly Independent States has expanded significantly.

A major function of the bibliographic program is to organize library materials for use by researchers, and to announce newly-published research to the agricultural community. This includes cataloging books and journals acquired for the collection, and indexing journal articles, conference proceedings, and reports selected for their importance to agricultural research and education. The Library's resources are made available in a number of ways, including the interlibrary loan of books and photocopies of journal articles. Requests for documents from USDA field employees are handled locally in 36 States and Puerto Rico in cooperation with land-grant university libraries whenever possible, with the NAL serving as a backup source for document delivery services.

NAL must ensure that scientists, administrators, educators and other users continue to have access to all useful information in the collection, including that contained in deteriorating materials. To accomplish this, a preservation program is required. This includes the transference of information to other

formats, binding unbound materials, restoring important documents and making in-house minor repairs when technically feasible. The staff has completed a report of a comprehensive preservation planning program study investigating all aspects of preservation activity at NAL from physical and environmental conditions of the collection to disaster control, staff and user education, and inter-institutional cooperation. The ultimate purpose of the study is to develop and implement an effective program for ensuring the availability of important agricultural information for future generations of researchers and other users.

Information Systems Technology. The first phase of the National Agricultural Text Digitizing Project, a cooperative undertaking by NAL and 44 land-grant university libraries to evaluate new methods of capturing and disseminating full text information on CD-ROMs, has been completed. The project has become a fully operational program to continue digitizing, disseminating, and preserving agricultural materials, and has published several CD-ROMs, including: "Agronomy Journal, Vol. 1-16", in cooperation with the American Society of Agronomy; "Aquaculture II"; "George Washington Carver," containing papers, notes and letters scanned from microfilm; and "Food Irradiation I." Production of a second agronomy CD-ROM, covering the Agronomy Journal, Vol. 17-22 is underway. Using a system which digitizes both the page image and the text on the page, users are able to search the text of documents by any word or combinations of words.

The National Science Foundation's NSFNET telecommunications network is serving as the backbone for a project which enables NAL to deliver documents to other libraries through the high speed electronic transmission of page images. NAL also utilizes advanced information technology to expand its capabilities and improve its responsiveness. NAL has moved to the leading edge of new technology in information science by pioneering projects on compact disks, interactive video disks, full text digitization, optical scanning technology, electronic telecommunications of library materials, expert systems, and video disk for storage of photographs. As a result of these efforts, services to users has been improved through faster response and more complete coverage of subject areas.

Incorporation of electronic resources, including the use of the Internet, is transforming the basic functions and services of the library. For example, electronic technologies are now used to acquire and process new library materials, reference questions can be asked and answered electronic via the Internet and by modem, and the resources of the library are increasingly being made available to end users directly in electronic form.

Levels of Activity. Other primary activities for Fiscal Years 1993, 1994, and 1995 are as follows:

| | Estimated Productivity | | |
|---|---|---|---|
| | Actual | Estimate | |
| Types of Activities | FY 1993 | FY 1994 | Estimate FY 1995 |
| Serial Issues Added | 133,176 | 135,000 | 136,000 |
| Number of Titles Cataloged | 19,375 | 20,000 | 20,250 |
| Articles Indexed | 87,756 | 80,000 | 80,000 |
| Pages Preserved | 3,300,000 | 3,300,000 | 3,300,000 |
| Document Requests Filled | 131,948 | 130,931 | 130,186 |
| Reference Inquiries Answered | 52,655 | 53,500 | 54,000 |
| Automated Searches Conducted | 34,120 | 34,000 | 33,500 |
| Current Awareness Literature Searches | 92,176 | 96,785 | 101,624 |
| Current Awareness Literature Profiles by all databases | 21,396 | 22,465 | 23,588 |

Selected Examples of Recent Progress

Reference Requests over Internet. Effective May 1, 1993, NAL's Reference Section, which provides reference and information assistance nationally and internationally, began accepting requests for reference services over the Internet. Services are provided to Federal, state and local government scientists, researchers and officials; professors, researchers and students at universities and colleges; private scientific, business and agricultural organizations; the general public and foreign government agencies. The Internet address for NAL Reference to reach NAL is: "agref@nalusda.gov."

Plant Genome Database Now Available. In support of the USDA Plant Genome Project and the Agricultural Research Service, NAL is making available the USDA Plant Genome Database and related data in several formats over the Internet and via modem access. The database contains genomic information (data on maps, probes, germplasm, and genes) on several crop species including maize, soybean, and wheat. The principal user groups, plant breeders and geneticists, will be able to approach the databases in a variety of ways. This strategy enables users with varying levels of automation skills and needs to make the most use of the data. In further support of this program, NAL has increased indexing coverage of plant genetics literature in AGRICOLA.

Electronic Bulletin Board Available Through Internet. The Agricultural Library Forum (ALF), NAL's electronic bulletin board system, offers public access via computer-telecommunications links to a vast array of agricultural information products, services, and assistance. Research assistance on all aspects of agriculture -- including trade and marketing, aquaculture, forestry and biotechnology -- has been provided by ALF since its inception in 1988. ALF has provided information and resources from NAL and other sources in response to 50,000 calls. In a new development, Internet users may now be linked to ALF through the FedWorld bulletin board system of the U.S. Department of Commerce, NTIS. All of ALF's files, conferences and messages are now accessible via the FedWorld. When the planned direct linkage of ALF to the Internet is completed, file transfers will be accomplished at network speed, giving users nearly instantaneous access to these files.

Multimedia CD-ROM on Ornamental Horticulture. NAL, along with the University of Florida Institute for Food and Agricultural Sciences and the Michigan State University Cooperative Extension Service, developed an interactive multimedia CD-ROM on home landscaping entitled "Plant It!-CD." The disc contains information on do-it-yourself landscaping, including 24 landscaping designs and information on nearly 1,000 plants that grow best in the various climate zones of the United States.

Food Irradiation Evaluation Study. NAL received funding from the USDA Science and Education evaluation funds and the USDA Food Safety and Inspection Service, to begin an evaluation study on providing international access to food irradiation materials. NAL will convert an NAL-produced food irradiation CD-ROM to another software package improving its usability and will employ a food irradiation expert to select documents for future electronic storage. Germany and France are interested in providing documents and databases to NAL so that NAL will become the international center for food irradiation information.

Computer Assisted Indexer Training at NAL. NAL's Indexing Branch has embarked upon a project to develop a computer-assisted training program to replace its present instructional method. New indexers generally spend 6 months to 1 year under the tutelage of an experienced indexer. Some of the expected benefits of this program are 1) reduced time required for novice indexers to achieve journeyman level; 2) increased productivity; 3) increased consistency and quality of the AGRICOLA database; and 4) potential use by the agricultural information community.

NAL Implements Electronic Ordering of Scientific Literature. Beginning in October 1993, the Acquisitions and Serials Branch began electronic transmission of monographic orders to one of its vendors, Blackwell North America, Inc. NAL is the first library to successfully use electronic ordering between the VTLS Acquisitions and Fund Accounting System (AFAS) and this vendor. Electronic transmission of orders means that the vendor will receive NAL's book requests in a matter of minutes, rather than days. Orders will be processed sooner by the vendor, resulting in faster receipt of scientific literature at NAL. NAL is currently working toward implementing electronic ordering for as many of the library's vendors as possible.

Letter of Understanding with the Egyptian National Agricultural Library. NAL is assisting Egyptian Ministry of Agriculture in the establishment of an Egyptian National Agricultural Library (ENAL). A Letter of Understanding between the two libraries was signed in May 1993.

A number of planning and consulting meetings have been held culminating in a training plan through which over 92 ENAL staff will be trained at NAL. This training will include acquisitions processing, cataloging, public services and new technologies. NAL staff will also assist in the installation and implementation of an integrated library system at the new library building in Cairo prior to the library opening in summer 1994.

NAL Increases Cooperative Cataloging Efforts. In mid-1993, NAL began participation in the National Coordinated Cataloging Program (NCCP). NCCP is a cooperative cataloging program of the Library of Congress (LC) in which selected libraries produce full level cataloging record for inclusion in the LC database and bibliographic utility. These cooperative efforts enable the database to be more current, provide access to more records, and reduce duplication of effort among the National Libraries.

Improvements in Interlibrary Borrowing. Several changes have enhanced service to USDA clientele needing items that NAL cannot supply from its collection. Through the use of ARIEL software, articles scanned by the provider are sent to NAL or directly to the patron via the Internet. Turnaround time has been reduced from days to hours, and postage costs have been eliminated. Additionally, by increasing its use of commercial document suppliers, NAL can obtain articles via telefacsimile usually within 24 hours, and sometimes in as little as six hours. Additional providers of this level of service will be added during FY 1994.

NAL Improves Regional Document Delivery System (RDDS) Network. NAL initiated an aggressive planning and communications program to improve NAL the RDDS service, which enables USDA employees in 36 states and Puerto Rico to request and receive documents directly from 37 land-grant university libraries, with NAL serving as the backup library. As a result, new guidelines were developed and implemented nationwide, laying out the network guiding principles designed to improve the level of service to participants, and outline the responsibilities of both NAL and land-grant participants. To further enhance rapid communication among RDDS institutions, NAL and Cornell University have cooperatively established an Internet discussion group.

Food Labeling Education Database Available. A database of food labeling education activities throughout the United States is now available at the Food Labeling Education Information Center of NAL. The database was set up to assist those working to develop education programs on new food labeling laws. It includes projects, research and educational materials (brochures, videotapes, etc.) that have been produced to inform the public about new food labeling laws that recently took affect. The Food Labeling Education Information Center, part of NAL's Food and Nutrition Information Center, is a cooperative effort among NAL, the Food Safety Inspection Service of the USDA and the U.S. Food and Drug Administration.

Electronic Information Products Available from the Animal Welfare Information Center (AWIC). AWIC is maintaining an electronic library of full-text animal welfare information including legislation and regulations. The library is updated periodically and is distributed on diskette.

Library Works to Provide Youth Development Information. NAL's Youth Development Information Center (YDIC) continues cooperative efforts with the USDA Extension Service and the 4-H Program, to identify and make available, in digital format, information on youth development for extension agents. The YDIC is also working with the National Collaboration for Youth and the National Society for Fund Raising Executives on projects aimed at improving computer networking for the youth development and resource development communities. It is anticipated that these initiatives will allow for more youth development information to be made available and will improve the quality of that information.

Central Europe Agricultural Business Guide Prepared. NAL's Agricultural Trade and Marketing Information Center has prepared a publication to assist U.S. agribusinesses interested in exporting to or doing other business with Central European countries. For each of eight countries, the publication "Eastern Europe: Going Global" lists selected readings on business climates, addresses to contact for information and briefing notes on each country. Countries covered are Albania, Bulgaria, the former Czechoslovakia, Hungary, Poland, Romania, the former Soviet Union, and Yugoslavia.

Public Interest Group Electronic Partnership. NAL's Rural Information Center (RIC) is loading the monthly newsletter, Economic Development Digest, on NAL's electronic bulletin board system, at the request of the National Association of Development Organizations Research Foundation. The Foundation began publishing the newsletter in 1992 as "a monthly report for the economic development community." The newsletter is prepared under a cooperative agreement with the U.S. Department of Commerce's Economic Development Administration, with additional funding from the USDA Forest Service.

# ECONOMIC RESEARCH SERVICE

## Purpose Statement

The Economic Research Service (ERS), was established in 1961 principally under the authority of the Agricultural Marketing Act of 1946 (7 U.S.C. 1621-1627).

ERS's mission is to provide economic and other social science information and analysis for improving the performance of agriculture and rural America.

ERS produces such information as a service to the general public and to help Congress and the administration develop, administer, and evaluate agricultural and rural policies and programs. ERS monitors, analyzes, and forecasts U.S. and world agricultural production and demand for production resources, agricultural commodities, and food and fiber products. ERS also measures the costs of and returns to agricultural production and marketing; evaluates the economic performance of U.S. agricultural production and marketing; and estimates the effects of government policies and programs on farmers, rural residents and communities, natural resources, and the public. In addition, ERS produces economic and other social science information about the organization and institutions of the U.S. and world agricultural production and marketing systems, natural resources, and rural communities.

ERS-produced information is made available to the public through research monographs, situation and outlook reports, standardized data products in electronic media, professional and trade journals (including The Journal of Agricultural Economics Research), magazines (including Agricultural Outlook, Food Review, Rural Conditions and Trends, and Rural Development Perspectives), radio, television, newspapers, and frequent participation of ERS staff at various public forums.

ERS has four program divisions--Commodity Economics, Agriculture and Trade Analysis, Resources and Technology, and Agriculture and Rural Economy--that carry out the four principal functions of ERS: research, situation and outlook analysis, staff analysis, and development of economic and statistical indicators. Research and economic and statistical indicators provide the knowledge base and the data base for the situation and outlook and staff analysis functions. The products of the situation and outlook analysis function are periodic reports that analyze the current situation and forecast the short-term outlook for major agricultural commodities, agricultural exports, agricultural finance, agricultural resources, and world agriculture. Staff analysis entails assessments of issues requiring policy decisions by the administration and Congress.

ERS is located in Washington, D.C. As of September 30, 1993, ERS had 737 permanent, full-time employees and 33 part-time employees.

# ECONOMIC RESEARCH SERVICE

## Available Funds and Staff-Years

## 1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Economic Research Service | $58,925,000 | 761 | $55,205,000 | 719 | $53,654,000 | 697 |
| Obligations under Other USDA appropriations: | | | | | | |
| Agricultural Marketing Service | 197,704 | 2 | 200,000 | 2 | -- | -- |
| Animal and Plant Health Inspection Service | 51,044 | -- | 45,000 | -- | -- | -- |
| Agricultural Research Service | 34,372 | -- | 9,500 | -- | 9,500 | -- |
| Agricultural Cooperative Service | 10,000 | -- | -- | -- | -- | -- |
| Alternative Agricultural Research and Commercialization Center | 70,662 | -- | 50,000 | -- | -- | -- |
| Cooperative State Research Service | 654,206 | 2 | 400,000 | 1 | 400,000 | 1 |
| Economic Analysis Staff | 6,000 | -- | -- | -- | -- | -- |
| Extension Service | 14,172 | -- | 9,500 | -- | 9,500 | -- |
| Farmers Home Administration | 25,000 | -- | 35,000 | -- | -- | -- |
| Federal Crop Insurance Corporation | 1,475,000 | -- | -- | -- | -- | -- |
| Foreign Agricultural Service | 355,500 | 1 | 300,000 | 1 | -- | -- |
| Forest Service | 147,168 | 1 | -- | -- | -- | -- |
| National Agricultural Statistics Service | 15,000 | -- | 13,000 | -- | 13,000 | -- |
| Office of Advocacy and Enterprise | 16,800 | -- | -- | -- | -- | -- |
| Rural Development Administration | 4,431,550 | -- | 2,000,000 | -- | 2,000,000 | -- |
| Soil Conservation Service | 21,272 | -- | 9,500 | -- | 9,500 | -- |
| World Agriculture and Outlook Board | 6,000 | -- | -- | -- | -- | -- |
| Total, Other USDA Appropriations | 7,531,450 | 6 | 3,071,500 | 4 | 2,441,500 | 1 |
| Total, Agriculture Appropriations | 66,456,450 | 767 | 58,276,500 | 723 | 56,095,500 | 698 |
| Other Federal Funds: | | | | | | |
| Congressional Budget Office | 6,104 | -- | 67,000 | 1 | -- | -- |
| Council of Economic Advisors | 69,689 | 1 | -- | -- | -- | -- |

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Department of Defense | 25,500 | -- | 24,000 | -- | -- | -- |
| Department of Education | 60,000 | -- | -- | -- | -- | -- |
| Department of Energy | 50,000 | -- | 50,000 | -- | -- | -- |
| Environmental Protection Agency | 20,000 | -- | 20,000 | -- | -- | -- |
| Office of International Cooperation and Development | 1,953,514 | 22 | 2,400,500 | 34 | 2,000,000 | 29 |
| Total, Other Federal Funds | 2,184,807 | 23 | 2,561,500 | 35 | 2,000,000 | 29 |
| Non-Federal Funds: | | | | | | |
| User Fees | 354,338 | 1 | 389,000 | 1 | 379,000 | 1 |
| Iowa State University | 10,500 | -- | -- | -- | -- | -- |
| Massachusetts Institute of Technology | 106,021 | 1 | -- | -- | -- | -- |
| North Carolina State University | 300,850 | 3 | 602,000 | 3 | 600,000 | 3 |
| Texas A&M University | 35,406 | -- | -- | -- | -- | -- |
| Total, Non-Federal Funds | 807,115 | 5 | 991,000 | 4 | 979,000 | 4 |
| Total, Economic Research Service | $69,448,372 | 795 | 61,829,000 | 762 | 59,074,500 | 731 |

ECONOMIC RESEARCH SERVICE

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | FY 1993 Headquarters | FY 1994 Headquarters | FY 1995 Headquarters |
|---|---|---|---|
| ES-6 | 1 | 1 | 1 |
| ES-5 | 3 | 3 | 3 |
| ES-4 | 3 | 3 | 3 |
| ES-2 | 0 | 0 | 2 |
| ES-1 | 2 | 2 | 0 |
| Senior Level | 1 | 1 | 1 |
| GS/GM-15 | 62 | 60 | 57 |
| GS/GM-14 | 136 | 129 | 122 |
| GS/GM-13 | 212 | 216 | 211 |
| GS-12 | 117 | 115 | 107 |
| GS-11 | 38 | 42 | 37 |
| GS-10 | 3 | 2 | 2 |
| GS-9 | 33 | 33 | 30 |
| GS-8 | 35 | 37 | 37 |
| GS-7 | 51 | 43 | 43 |
| GS-6 | 41 | 41 | 41 |
| GS-5 | 28 | 25 | 25 |
| GS-4 | 4 | 4 | 4 |
| GS-3 | 6 | 6 | 6 |
| GS-2 | 1 | 1 | 1 |
| Total Permanent Positions | 777 | 764 | 733 |
| Unfilled Positions end-of-year | 28 | 15 | -- |
| Total, Permanent Employment, end-of-year | 749 | 749 | 733 |
| Staff-Year Ceiling | 795 | 762 | 731 |

ECONOMIC RESEARCH SERVICE

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | | 1993 | 1994 | 1995 |
|---|---|---|---|---|
| Personnel Compensation: | | | | |
| | Headquarters | 37,288,781 | 37,337,000 | 36,919,000 |
| | Field | -- | -- | -- |
| 11 | Total personnel compensation | 37,288,781 | 37,337,000 | 36,919,000 |
| 12 | Personnel benefits | 7,285,676 | 7,396,000 | 7,384,000 |
| 13 | Benefits for former personnel | 25,852 | 18,000 | 20,000 |
| | Total Pers. Comp & Benefits | 44,600,309 | 44,751,000 | 44,323,000 |
| Other Objects: | | | | |
| 21 | Travel | 450,649 | 671,000 | 646,000 |
| 22 | Transportation of things | 51,051 | 28,000 | 27,000 |
| 23.3 | Communications, utilities, and misc. charges | 683,579 | 838,000 | 806,000 |
| 24 | Printing and reproduction | 396,192 | 446,000 | 429,000 |
| 25.2 | Other services | 3,498,267 | 3,639,000 | 2,635,000 |
| 25.3 | Purchases of goods and services from Government accounts | 5,672,000 | 2,570,000 | 2,570,000 |
| 25.5 | Research and development contracts | 1,709,000 | 1,100,000 | 1,100,000 |
| 26 | Supplies and materials | 829,138 | 606,000 | 583,000 |
| 31 | Equipment | 962,093 | 556,000 | 535,000 |
| | Total other objects | 14,251,969 | 10,454,000 | 9,331,000 |
| | Total direct obligations | 58,852,278 | 55,205,000 | 53,654,000 |
| Position Data: | | | | |
| | Average Salary, ES positions | $106,789 | $110,354 | $112,120 |
| | Average Salary, GM/GS positions | $48,850 | $50,759 | $51,571 |
| | Average Grade, GM/GS positions | 11.5 | 11.5 | 11.5 |

## ECONOMIC RESEARCH SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

For necessary expenses of the Economic Research Service in conducting economic research and service relating to agricultural production, marketing, and distribution as authorized by the Agricultural Marketing Act of 1946 (7 U.S.C. 1621-1627), and other laws, including economics of marketing; analyses relating to farm prices, income and population, and demand for farm products, use of resources in agriculture, adjustments, costs and returns in farming, and farm finance; research relating to the economic and marketing aspects of farmer cooperatives; and for analysis of supply and demand for farm products in foreign countries and their effect on prospects for United States exports, progress in economic development and its relation to sales of farm products, assembly and analysis of agricultural trade statistics and analysis of international financial and monetary programs and policies as they affect the competitive position of United States farm products, [$55,219,000] $53,654,000: of which $500,000 shall be available for investigation, determination and finding as to the effect upon the production of food and upon the agricultural economy of any proposed action affecting such subject matter pending before the Administrator of the Environmental Protection Agency for presentation, in the public interest, before said Administrator, other agencies or before the courts: *Provided*, That this appropriation shall be available to continue to gather statistics and conduct a special study on the price spread between the farmer and the consumer: *Provided further*, That this appropriation shall be available for employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225): *Provided further*, That this appropriation shall be available for analysis of statistics and related facts on foreign production and full and complete information on methods used by other countries to move farm commodities in world trade on a competitive basis.

## ECONOMIC RESEARCH SERVICE

| | |
|---|---|
| Appropriation Act, 1994 | $55,219,000 |
| Budget Request, 1995 | 53,654,000 |
| Decrease in Appropriation | 1,565,000 |

Adjustments in 1994:

| | | |
|---|---|---|
| Appropriations Act, 1994 | 55,219,000 | |
| Office of Advocacy & Enterprise Transfer | -14,000 | |
| Adjusted base for 1994 | | 55,205,000 |
| Budget Request, 1995 | | 53,654,000 |
| Decrease from adjusted 1994 | | 1,551,000 |

a/ The transfer to the Office of Advocacy and Enterprise is for an EEO Specialist to provide EEO Counseling Services for the Economics agencies. On a comparable basis, the full annual cost for this activity is $14,000 for 1994 and $14,000 for 1995.

Summary of Increases and Decreases
(On basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Costs | Program Changes | 1995 Estimated |
|---|---|---|---|---|
| Economic Analysis and Research | $55,205,000 | +$466,000 | -$2,017,000 | $53,654,000 |

Project Statement
(On basis of adjusted appropriation)

| Project | 1993 Actual | | 1994 Estimated | | Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | | Amount | Staff-Years |
| Economic Analysis and Research | $58,852,278 | 761 | $55,205,000 | 719 | -$1,551,000 (1) | $53,654,000 | 697 |
| Unobligated Balance lapsing | 72,722 | -- | -- | -- | -- | -- | -- |
| Total available or estimate | 58,925,000 | 761 | 55,205,000 | 719 | -1,551,000 | 53,654,000 | 697 |
| Transfer from Secretary's Office | -205,000 | -2 | - - | - - | | | |
| Transfer to Office of Advocacy and Enterprise | - - | - - | +14,000 | - - | | | |
| Total, Appropriation | 58,720,000 | 759 | 55,219,000 | 719 | | | |

Note: Under the Secretary's proposed reorganization plan beginning in 1995, 4 staff-years and $340,000 for the Economic Analysis Staff will be moved to Executive Operations.

## EXPLANATION OF PROGRAM

The appropriation for the Economic Research Service funds the following activity:

--Economic analysis and research--This activity includes research, situation and outlook analysis, staff analysis, and development of economic and statistical indicators in the four major program areas--commodity economics, agriculture and trade analysis, resources and technology, and agriculture and rural economy.

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A decrease of $1,551,000 for economic analysis and research consisting of:

(a) An increase of $466,000 for the proposed January 1995 1.6-percent pay raise.

(b) An increase of $227,000 which reflects a projected 2.6-percent increase in nonsalary costs.

Need for Change. These funds are needed to cover basic non-controllable costs to avoid a Reduction in Force while streamlining the agency.

Nature Of Change. This increase will be used to maintain a current level of services associated with inflation, which will affect critical parts of our program.

(c) A decrease of $2,244,000 as a result of a 31-staff year reduction in employment.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, ERS is reducing employment from the FY 1993 base by 8 percent in 1995 and by 10 percent during FY 1994-98. ERS will refocus its programs on the Department's mission areas under the Secretary's reorganization plan.

Nature of Change. ERS proposes to reduce its employment ceiling from 762 staff-years in FY 1994 to 731 staff-years in FY 1995 and 682 staff-years in FY 1998.

ECONOMIC RESEARCH SERVICE
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Alabama | 10,000 | - - | 5,000 | - - | - - | - - |
| Arkansas | 26,355 | - - | 6,000 | - - | - - | - - |
| California | 220,329 | - - | 202,000 | - - | - - | - - |
| Colorado | 109,178 | - - | 50,000 | - - | - - | - - |
| Connecticut | 39,807 | - - | 30,000 | - - | - - | - - |
| District of Columbia | 57,024,048 | 761 | 53,950,000 | 719 | 52,554,000 | 697 |
| Florida | 135,300 | - - | 86,000 | - - | - - | - - |
| Georgia | 27,400 | - - | - - | - - | - - | - - |
| Idaho | 24,325 | - - | - - | - - | - - | - - |
| Illinois | 132,000 | - - | 30,000 | - - | - - | - - |
| Indiana | 79,650 | - - | 90,000 | - - | - - | - - |
| Iowa | 54,000 | - - | 50,000 | - - | - - | - - |
| Kansas | 29,378 | - - | - - | - - | - - | - - |
| Kentucky | 33,997 | - - | 234,000 | - - | - - | - - |
| Louisiana | 22,000 | - - | 72,000 | - - | - - | - - |
| Maryland | 15,000 | - - | 50,000 | - - | - - | - - |
| Massachusetts | 32,362 | - - | 10,000 | - - | - - | - - |
| Michigan | 20,000 | - - | 15,000 | - - | - - | - - |
| Minnesota | 92,894 | - - | 50,000 | - - | - - | - - |
| Missouri | 60,645 | - - | 25,000 | - - | - - | - - |
| Montana | 70,000 | - - | - - | - - | - - | - - |
| Nebraska | 12,000 | - - | - - | - - | - - | - - |
| New York | 18,500 | - - | 35,000 | - - | - - | - - |
| New Mexico | 26,000 | - - | - - | - - | - - | - - |
| North Carolina | 15,000 | - - | 50,000 | - - | - - | - - |
| Ohio | 275,580 | - - | 30,000 | - - | - - | - - |
| Oregon | 23,376 | - - | - - | - - | - - | - - |
| Pennsylvania | 10,000 | - - | 30,000 | - - | - - | - - |
| South Carolina | 25,000 | - - | 10,000 | - - | - - | - - |
| Tennessee | 6,930 | - - | 20,000 | - - | - - | - - |
| Texas | 89,642 | - - | 50,000 | - - | - - | - - |
| Virginia | 43,582 | - - | - - | - - | - - | - - |
| Wisconsin | 48,000 | - - | 25,000 | - - | - - | - - |
| Undetermined | - - | - - | - - | - - | 1,100,000 | - - |
| Subtotal, Available or Estimate | 58,852,278 | 761 | 55,205,000 | 719 | 53,654,000 | 697 |
| Unobligated balance | 72,722 | - - | - - | - - | - - | - - |
| Total, Available or Estimate | 58,925,000 | 761 | 55,205,000 | 719 | 53,654,000 | 697 |

# ECONOMIC RESEARCH SERVICE

## STATUS OF PROGRAM

The Economic Research Service (ERS) performs work under one appropriation item—economic analysis and research. Current activities and selected examples of recent progress are described briefly below.

## ECONOMIC ANALYSIS AND RESEARCH

Current Activities: ERS carries out its economic analysis and research in four program divisions, whose programs and plans for 1994 are highlighted below.

1. The Agriculture and Rural Economy Division (ARED) conducts a national program of research and analysis on agricultural and rural conditions and trends and identifies and evaluates public and private sector actions and policies that affect the agricultural sector and rural areas. ARED's agenda is shaped by the changing economic and demographic structures of agriculture and rural America. Its program covers the interconnectedness of agriculture, the rural economy, and the national economy; comparisons of performance between urban and rural economies; the financial performance of the farm sector and its components; the effects of international economic and financial integration on the rural economy; migration and population change; the industrial transformation of the rural economy; changes in rural and agricultural labor markets and labor conditions; and the implications of the evolving structures of farming, credit, and financial markets for rural people, businesses, communities, and institutions.

   In 1994, in cooperation with counterparts in Canada, ARED will compare the structure of farming in the United States and Canada in order to better understand the potential implications of trade reform on two relatively similar countries that could experience freer trade policies in the future. This analysis will complement ongoing research to characterize the U.S. farm structure and its relationship to national and regional economies that is published annually in the *Status of the Family Farm* report. Hired farm workers, a disadvantaged group, continue to be critically important to some segments of U.S. farming and the focus of public policy. ARED will publish research on the socioeconomic characteristics and earnings of hired farm workers, including an assessment of the effects of changing labor policies on the supply, demand, and well-being of hired workers. ARED will use the Farm Costs and Returns Survey to continue research on the financial structure and performance of farm businesses with special emphasis on the importance of farm structural, managerial, agronomic, and other factors that influence commodity and firm costs and returns. Supplementing this research will be an analysis of the level and distribution of farm household incomes and how household incomes vary among farming regions of the United States. In an era of overall reductions in Federal spending, reductions in ARED's survey funds has reduced the number of farmers who can be interviewed for USDA farm financial surveys. ARED will examine the impact of smaller samples on the statistical reliability of regional and State level farm financial data. ARED will explore the effects of international trade on the workings of the national economy, how the effects are transmitted to the rural and farm sectors, and the effects on individual sectors of the U.S. food and

fiber system. Manufacturing and/or natural resources are the economic base of most rural areas, and heightened international competition and new technologies are changing the structure of U.S. manufacturing and natural resource industries. ARED will investigate the participation of rural areas in these changes and the effectiveness of such strategies as industrial extensionto make rural businesses more innovative. Because the importance of natural resources to rural economies is shifting from resource exploitation to amenity value, ARED will begin a project to examine this shift and what it means for the rural workforce. The socioeconomic geography of rural America is clearly changing. ARED will document changes over the 1980–90 decade in a published report examining trends in rural families, jobs, and income according to regional location, remoteness from major urban centers, and the nature of the local rural economy. Recently available, but limited, data for the early 1990's will allow ARED to expand this analysis to include the early years of this decade. ARED will publish its recently updated rural county typologies, which provide a framework for understanding the spatial implications for public policy of the changing socioeconomic characteristics of rural America. ARED will document changes in Federal spending in rural areas during the 1980's, a period when Federal budget constraints and changing priorities led to a decline in many Federal programs. ARED will continue to analyze the effectiveness of various public strategies to foster greater economic growth in rural communities. In particular, ARED will complete a study of federally capitalized revolving loan funds and small business investment companies to determine how effectively they serve rural communities. ARED will continue to work closely with USDA's rural development agencies, the State Rural Development Councils, and other organizations, to make its research findings and analysis useful to those involved in rural development. ARED will provide a historical perspective on several dimensions of the evolving agricultural sector and rural America and associated Federal policies and programs.

2. The Agriculture and Trade Analysis Division (ATAD) is a major source of expertise, data, and models about the agricultural economies and policies of foreign countries, and the agricultural trade and development relationships between foreign countries and the United States. The major mission of ATAD is to understand and quantify the forces shaping world economic events and analyze their impacts on trade and trade policy, domestic agricultural policy, and their ultimate impacts on both the health and viability of U.S. agriculture and on world food aid and development needs.

   In 1994, ATAD will devote increased attention to longer run forces shaping world and U.S. agriculture. A new annual report, *Forces Affecting World Agriculture*, will provide a succinct synthesis of the longer run forces and their possible outcomes to help U.S. policymakers, producers, and consumers make better decisions. A newly expanded series of six annual *International Agriculture and Trade Reports* cover Africa and the Middle East, Asia and Pacific Rim, China, Europe, Former USSR, and Western Hemisphere, and is supplemented by the *Food Aid Needs Report*. These reports will supplement their short-term outlook with longer term perspectives on implications of developments in the regions for world trade and development. ATAD analysts will also provide current analysis and forecasts to underpin USDA's monthly publication of *World Agricultural Supply and Demand Estimates* and quarterly forecasts of U.S. agricultural exports. The expansion and modification of regional forecasting and policy analysis models and their

integration into a world trade model will underpin ATAD's long-range forecasts and scenarios of world agricultural trade. Special research projects will focus on specific issues with long-run implications for world agriculture such as foreign environmental policies and problems, the growth of trade in high-valued and processed products, and the success or failure of GATT negotiations and regional trade agreements.

3. The Commodity Economics Division's (CED) program of analysis and commodity market intelligence improves public and private sector understanding of U.S. and world markets for agricultural commodities and their products. CED's analytical program focuses on three major areas in the commodity arena: commodity supply, demand, and price monitoring and forecasting; structure, conduct, and performance of the major national and international commodity markets; and national and international marketing of commodities from U.S. producers to domestic and foreign consumers and from foreign producers of imported commodities and products to U.S. consumers.

   In 1994, CED will analyze and monitor commodity market developments and disseminate analytical results and projections through regular outlook reports, special reports as market developments warrant, yearbooks, presentations, and responses to public information requests. CED will continue research and analysis on: the structure, operation, and performance of major commodity markets and industries in alternative policy settings; investment and competition in the food marketing industries in the United States and abroad; and food safety, food assistance, and nutrition education. Special activities include: congressionally mandated studies of commodity policy and program issues; development and maintenance of data bases and models to improve analyses, forecasts, and projections; analytical support for trade negotiations and agreements; economic evaluations of crop insurance programs and options; and analytical support for development and debate of the 1995 farm bill. Activities supporting the farm bill deliberations include special analyses of the impact of prior government policies on program commodities and futures options and alternatives, and the effects of Federal programs on production and prices for commodities not covered by commodity programs. These analyses will provide historical perspectives as well as evaluations of future alternatives and options open to policymakers.

4. The Resources and Technology Division (RTD) produces economic research, staff analysis, and situation and outlook analyses on a broad range of resource, technology, and environmental policy issues. RTD measures changes in agricultural productivity, analyzes technological innovation and adoption, examines the economic impacts of biotechnology, and estimates the economic and environmental tradeoffs associated with alternative production systems designed to achieve water and land quality goals. The division provides analysis on agricultural chemical use, integrated pest management, consumer exposure to risk from food, consumer demand for risk reduction, and alternative production policies designed to reduce risk. RTD researches the demand for and supply of water, and studies the economic and environmental benefits and costs associated with policies affecting the supply of water. Research is also directed at determining the value of land resources and other capital assets in the agricultural sector.

In 1994, RTD will evaluate agricultural and environmental benefits and costs of farm policies, regulations, and the adoption of management practices designed to improve and maintain water quality; evaluate public policies affecting the supply of environmental services in agriculture, with an emphasis on agriculture's role in the conservation of biodiversity; examine the economic determinants of chemical use in agricultural production, including the role of nonchemical substitutes for pest control, and determine how agricultural chemical policies influence the welfare of consumers; evaluate the economic effects of alternative policies to reduce environmental and health risks; explain how commodity programs and conservation provisions of farm legislation affect the agricultural economy and the natural resource base; study the effectiveness of conservation compliance and environmental implications of the flexibility provisions of commodity programs; use geographic information systems techniques to perform aggregate-level analyses of public policies impacts on resource use; show how changes in global, environmental, technological, and demographic trends affect U.S. agriculture and U.S. agricultural resources; show how deforestation, soil quality, water availability, and species diversity affect global food production; conduct research on global climate change; and assess the impact of freer trade on environmental quality and the impact of environmental policy of trade flows.

Selected Examples of Recent Progress: Recent accomplishments under this appropriation item are cited below.

1. Provided technical support for trade agreements. ERS analysis was an integral part of USDA's NAFTA evaluation that assessed the costs and benefits of NAFTA for 31 commodities, the impacts on States and regions, and assessed environmental concerns and food safety. ERS contributed to a congressionally mandated report, *Agriculture in a North American Free Trade Agreement*, which gave Congress and the public a detailed explanation of NAFTA. ERS analysis showed that, if ratified, NAFTA could increase agricultural exports by $2.6 billion and add over 56,000 jobs. ERS also provided analysis for the Office of the United States Trade Representative and USDA's Foreign Agricultural Service in support of GATT negotiations. Contributions included analysis of the proposed agreement (Dunkel text), quick turnaround analyses of technical questions raised by negotiators at Brussels, Geneva, and Tokyo, and evaluations of proposals (country lists) submitted by other GATT members.

2. Documented rural development problems in the 1980's. The 1980's were marked by reduced overall population growth, widespread population decline in America's heartland, and a slowdown in the nonmetro economy. Rural areas had a growing share of the nation's low-wage, low-skilled jobs. Low-wage service producing industries accounted for most of the nonmetro job growth. A general decline in real rural wages over the decade was evident. The ERS research shows that while farming and mining counties lost population and employment in the 1980's, rural retirement and recreation areas grew rapidly. ERS research also shows that overall nonmetro poverty rose after having fallen during the 1970's. Blacks continue to have the highest nonmetro poverty rate, 39.5 percent, a rate over three times higher than for Whites. Families headed by women, in which one-quarter of all nonmetro children now live, had a poverty rate of 50.7 percent.

3. Examined alternative environmental strategies. ERS analyzed alternative pollution-prevention strategies to attain the most cost-effective protection for consumers and producers. For example, ERS found that restricting chemical use in cotton production only in those areas most vulnerable to water quality problems achieved nearly the same reduction in water pollution risk as restricting chemical usage by all cotton farmers. ERS research also found that devising a tradable permit scheme to achieve water quality goals is difficult given the nonpoint nature of much agricultural water quality pollution. However, it may be possible to devise a trading scheme to reduce pollution in a watershed by allowing point pollution sources (such as sewer treatment plants) to fund programs to reduce nonpoint pollution sources (such as agriculture).

4. Linked pesticide management, farm characteristics, and food safety. ERS developed reliable State-level estimates of agricultural chemical use and collected input data linking chemical use with economic characteristics of U.S. farms. The data were used to coordinate Environmental Protection Agency and Food and Drug Administration activities and to help them meet their needs for risk assessments, tolerance setting, and focused residue sampling. ERS also worked with USDA's Agricultural Marketing Service to link pesticide residue sampling data with farm and marketing pesticide use data, enhancing the likely effectiveness of risk-reducing strategies.

5. Assessed rural development strategies. ERS examined several strategies to foster sustainable economic development in rural communities, including enterprise zones, telecommunications, retiree attraction, job training, casino gambling, and business incubator programs. Research indicates that each strategy can play a role in fostering rural economic growth and development in some communities, but that no one strategy is likely to be effective by itself. ERS research found that many rural enterprise zones are as effective, or even more effective, than urban enterprise zones in stimulating local business activity. ERS research on State-operated enterprise zones is being used to help implement Federal empowerment zone legislation.

6. Analysis countered Soviet starvation reports. ERS analysis of the food situation and commercial import capabilities in the 15 Republics of the Former Soviet Union (FSU) countered press reports of potential widespread starvation. As a result, discussion shifted to focus on needed reform in FSU institutions and legal structure. P.L.–480 food aid allocations and congressional deliberations on aid funding relied on ERS analysis.

7. Food price forecasts calmed consumer fears. ERS commodity analysis and food price forecasts provided a continual assessment of the probable effects of the Midwestern floods on commodity conditions and food prices. ERS appraisals indicated that food price effects would be minimal in contrast to media coverage which initially raised the specter of shortages and significant food price inflation. ERS analysis helped the Secretary of Agriculture allay consumer fears of food shortages and inflation.

8. Enhanced understanding of farm household income. ERS/NASS survey data showed, for 1992, farm operator households had an average income of $4,300 from farming and $35,700 from all other sources, a total income comparable to the incomes of other households in the Nation. Average total income for operator households on farms with sales of $50,000 or more was

about $46,000. At the same time, 22 percent of farm households reported total income below $15,000, approximately the poverty threshold for a family of four.

9. Evaluated USDA programs. ERS analysis helped other USDA and government agencies design, operate, and evaluate programs and initiatives. Updated cost estimates associated with the leasing and use of Federal grazing and estimates of use levels under alternative conditions were provided to USDA'S Forest Service and Interior's Bureau of Land Management. A finding from an ERS study on the costs and benefits of a proposal to provide cleaner grain for export markets was that the costs of cleaning all grain for export would exceed the benefits. ERS studied Federal crop insurance regulations and is managing a large-scale study of alternative crop insurance programs. ERS work on the costs of foodborne illness contributed to an economic impact analysis of potential Food Safety and Inspection Service regulations dealing with partially cooked meat patties and safe handling labels for meat and poultry products. ERS analysts integrated the foodborne illness cost information with the structure and performance of the food processing industry as a contribution to work associated with Hazard Analysis of Critical Control Points (HACCP).

# NATIONAL AGRICULTURAL STATISTICS SERVICE

## Purpose Statement

The USDA published its first crop report in 1863, and further strengthened this responsibility in 1905 by creating the Crop Reporting Board (now the Agricultural Statistics Board). Today, the major responsibility for collecting and publishing current statistics on the Nation's agriculture is carried on by the National Agricultural Statistics Service (NASS). These responsibilities were authorized under the Agricultural Marketing Act of 1946 (7 U.S.C. 1621-1627).

NASS's unbiased statistics on agriculture keep all involved with America's biggest industry well informed, help provide the basic foundation necessary to keep agricultural markets stable and efficient, and help maintain a "level playing field."

NASS programs are conducted in the following major areas:

1. Agricultural Estimates. NASS State Statistical Offices regularly survey thousands of operators of farms, ranches, and agribusinesses who voluntarily provide information on a confidential basis. Consolidating these reports with field observations, objective yield measurements, and other data, statisticians then produce State estimates. These estimates are forwarded to NASS headquarters where they are combined and released to the press and public through the Agricultural Statistics Board. Annually, over 400 national reports are complemented with State reports that provide broad coverage of agriculture, including more than 120 crop and 45 livestock items.

2. Statistical Research and Service. Research is conducted to improve the statistical methods and techniques used in developing U.S. agricultural statistics. The highest priority of the research agenda is to aid the NASS estimation program through development of better estimators at lower cost and with less respondent burden. This means greater efficiency in sampling and data collection coupled with higher quality data upon which to base the official estimates. In a environment of escalating demand for statistical information but shrinking resources, continued service to users will be increasingly dependent upon methodological and technological efficiencies.

3. Work Performed for Others. Services are performed for other Federal and State agencies and private commodity organizations on a reimbursable basis. These services consist primarily of conducting surveys and performing related data collection activities. They also include technical consultation, support, and assistance for international programs under participating agency service agreements.

The National Agricultural Statistics Service maintains a central office in Washington, D.C., and a network of 45 field offices, serving all 50 States, that operate through cooperative agreements with State Departments of Agriculture or universities. As of September 30, 1993, the Service had 1,088 permanent full-time employees and 61 part-time employees, including 394 full-time and 34 part-time employees in Washington, D.C.

NATIONAL AGRICULTURAL STATISTICS SERVICE

Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| National Agricultural Statistics Service | $81,050,145 | 1,022 | $81,859,000 | 1,027 | $89,500,000 | 1,033 |
| Obligations under Other USDA appropriations: | | | | | | |
| Agricultural Marketing Service for pesticide work and data on milk prices | 238,900 | 2 | 269,000 | 2 | 269,000 | 2 |
| Animal and Plant Health Inspection Service for animal health monitoring system and data on animal damage control | 420,000 | 5 | 420,000 | 5 | 420,000 | 5 |
| Agricultural Stabilization and Conservation Service (CCC) for data on feed grains, and wool and mohair stocks | 110,000 | 1 | 100,000 | 1 | 100,000 | 1 |
| Economic Research Service for data on chemical use and farm economics, area studies, cropping practices, farm costs and returns, farm and rural markets, land use, land values, and water quality | 5,672,000 | 55 | 2,570,000 | 33 | 2,570,000 | 33 |
| Federal Crop Insurance Corporation for acreage and yield production data on insured crops | 670,000 | 8 | 932,000 | 12 | 932,000 | 12 |
| Forest Service for data on grazing fees | 45,000 | -- | 45,000 | -- | 45,000 | -- |
| Human Nutrition Information Service for consulting services | 75,000 | 1 | 60,000 | 1 | 60,000 | 1 |
| Office of Public Affairs for a farmer opinion survey | 35,000 | -- | -- | -- | -- | -- |
| World Agricultural Outlook Board for printing, and lockup support | 6,851 | -- | 7,000 | -- | 7,000 | -- |
| Total, Other USDA Appropriations | 7,272,751 | 72 | 4,403,000 | 54 | 4,403,000 | 54 |
| Total, Agriculture Appropriations | 88,322,896 | 1,094 | 86,262,000 | 1,081 | 93,903,000 | 1,087 |

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Other Federal Funds: | | | | | | |
| Commerce, Department of, for statistical research work on the Census of Agriculture | 563,500 | 3 | 97,000 | 1 | 97,000 | 1 |
| Environmental Protection Agency for data on agroecosystems and water quality | 250,000 | 3 | 1,300,000 | 16 | 1,300,000 | 16 |
| Interior, Department of, for data on grazing fees | 43,500 | -- | 45,000 | -- | 45,000 | -- |
| Labor, Department of for assistance on research on computer assisted telephone interview techniques | 250,000 | -- | 250,000 | -- | 250,000 | -- |
| National Academy of Sciences for personnel detail | 24,018 | -- | -- | -- | -- | -- |
| National Institute of Occupational Safety and Health for data on farm safety and health | 190,000 | 1 | 190,000 | 2 | 190,000 | 2 |
| Office of International Cooperation and Development (from AID) for training, technical assistance, equipment and personnel detail | 1,080,693 | 9 | 815,000 | 9 | 815,000 | 9 |
| Total, Other Federal Funds | 2,401,711 | 16 | 2,697,000 | 28 | 2,697,000 | 28 |
| Non Federal Funds: | | | | | | |
| State Agencies for survey work | 1,936,935 | 24 | 1,900,000 | 24 | 1,900,000 | 24 |
| Misc. Contributed Funds for distribution of crop releases and data tapes, data on beef, hops, malting barley, milk, oats, fruit, vegetabls wheat, soybeans wool and mohair stocks agricultural cooperatives, greenhouses, and conducting mailings | 266,683 | 1 | 243,000 | 2 | 240,000 | 2 |
| Total Non-Federal Funds | 2,203,618 | 25 | 2,143,000 | 26 | 2,140,000 | 26 |
| Total, National Agricultural Statistics Service | 92,928,225 | 1,135 | 91,102,000 | 1,135 | 98,740,000 | 1,141 |

NATIONAL AGRICULTURAL STATISTICS SERVICE

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | FY 1993 | | | FY 1994 | | | FY 1995 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Headquarters | Field | Total | Headquarters | Field | Total | Headquarters | Field | Total |
| ES-6 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| ES-5 | 3 | -- | 3 | 3 | -- | 3 | 3 | -- | 3 |
| ES-4 | 3 | -- | 3 | 4 | -- | 4 | 3 | -- | 3 |
| ES-3 | 1 | -- | 1 | -- | -- | -- | -- | -- | -- |
| ES-2 | -- | -- | -- | 1 | -- | 1 | 1 | -- | 1 |
| ES-1 | 1 | -- | 1 | -- | -- | -- | 1 | -- | 1 |
| 2S-15 | 21 | 15 | 36 | 21 | 15 | 36 | 20 | 15 | 35 |
| GS-14 | 49 | 47 | 96 | 48 | 46 | 94 | 47 | 46 | 93 |
| GS-13 | 131 | 60 | 191 | 129 | 61 | 190 | 132 | 61 | 193 |
| GS-12 | 43 | 109 | 152 | 42 | 109 | 151 | 43 | 109 | 152 |
| GS-11 | 15 | 88 | 103 | 14 | 88 | 102 | 14 | 88 | 102 |
| GS-10 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| GS-9 | 23 | 69 | 92 | 21 | 66 | 87 | 20 | 67 | 87 |
| GS-8 | 25 | 2 | 27 | 24 | 2 | 26 | 24 | 2 | 26 |
| GS-7 | 32 | 83 | 115 | 30 | 80 | 110 | 30 | 81 | 111 |
| GS-6 | 22 | 100 | 122 | 21 | 99 | 120 | 21 | 99 | 120 |
| GS-5 | 23 | 84 | 107 | 22 | 83 | 105 | 23 | 84 | 107 |
| GS-4 | 6 | 47 | 53 | 6 | 46 | 52 | 6 | 47 | 53 |
| GS-3 | 1 | 3 | 4 | 1 | 3 | 4 | 1 | 3 | 4 |
| Other Graded Positions | -- | 1 | 1 | -- | 1 | 1 | -- | 1 | 1 |
| Total Permanent Positions | 401 | 708 | 1,109 | 389 | 699 | 1,088 | 391 | 703 | 1,094 |
| Unfilled Positions end-of-year | -7 | -14 | -21 | -- | -- | -- | -- | -- | -- |
| Total, Permanent Employment, end-of-year | 394 | 694 | 1,088 | 389 | 699 | 1,088 | 391 | 703 | 1,094 |
| Staff-Year Ceiling | 420 | 715 | 1,135 | 415 | 720 | 1,135 | 417 | 724 | 1,141 |

NATIONAL AGRICULTURAL STATISTICS SERVICE

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| Personnel Compensation: | | | |
| Headquarters ..... | $17,947,967 | $18,821,000 | $19,752,000 |
| Field ..... | 22,897,285 | 24,415,000 | 26,034,000 |
| 11 Total personnel compensation..... | 40,845,252 | 43,236,000 | 45,786,000 |
| 12 Personnel Benefits.... | 8,765,694 | 9,029,000 | 9,561,000 |
| 13 Benefits for former personnel..... | 19,204 | 20,000 | 20,000 |
| Total Personnel Compensation & Benefits.. | 49,630,150 | 52,285,000 | 55,367,000 |
| Other Objects: | | | |
| 21 Travel..... | 1,297,738 | 1,286,000 | 1,229,000 |
| 22 Transportation of things..... | 302,054 | 314,000 | 300,000 |
| 23.3 Communications, utilities and miscellaneous charges.... | 2,829,835 | 3,129,000 | 2,991,000 |
| 24 Printing and reproduction..... | 410,349 | 503,000 | 481,000 |
| 25.1 Consulting Services... | 259,990 | 400,000 | 400,000 |
| 25.2 Other services ..... | 21,139,123 | 20,830,000 | 24,406,000 |
| 25.3 Purchase of goods and services from Government Accounts... | 1,154,890 | 914,000 | 1,090,000 |
| 25.5 Research and Development Contracts..... | 265,000 | 150,000 | 150,000 |
| 26 Supplies and materials..... | 1,017,708 | 927,000 | 1,685,000 |
| 31 Equipment ..... | 2,645,227 | 1,119,000 | 1,399,000 |
| 43 Interest and dividends | 2,136 | 2,000 | 2,000 |
| Total other objects... | 31,324,050 | 29,574,000 | 34,133,000 |
| Total direct obligations... | 80,954,200 | 81,859,000 | 89,500,000 |
| Position Data: | | | |
| Average Salary, ES positions ..... | $107,522 | $112,070 | $116,686 |
| Average Salary, GM/GS positions ..... | $39,381 | $41,613 | $43,702 |
| Average Grade, GM/GS positions ..... | 9.7 | 9.7 | 9.7 |

## NATIONAL AGRICULTURAL STATISTICS SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

NATIONAL AGRICULTURAL STATISTICS SERVICE:

For necessary expenses of the National Agricultural Statistics Service in conducting statistical reporting and service work, including crop and livestock estimates, statistical coordination and improvements, and marketing surveys, as authorized by the Agricultural Marketing Act of 1946 (7 U.S.C. 1621-1627) and other laws, [$81,764,000] $89,500,000: Provided, That this appropriation shall be available for employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed $40,000 shall be available for employment under 5 U.S.C. 3109.

## NATIONAL AGRICULTURAL STATISTICS SERVICE

| | | |
|---|---|---|
| Appropriations Act, 1994 | | $81,764,000 |
| Budget Request, 1995 | | 89,500,000 |
| Increase in Appropriation | | + 7,736,000 |
| Adjustments in 1994 | | |
| Appropriations Act, 1994 | 81,764,000 | |
| GSA Space Transfer a/ | + 109,000 | |
| Transfer to the Office of Personnel b/ | - 14,000 | |
| Adjusted base for 1994 | | 81,859,000 |
| Budget Estimate, 1995 | | 89,500,000 |
| Increase over adjusted 1994 | | + 7,641,000 |

a/ The transfer from Departmental Administration is due to the transfer of the Alabama and North Dakota State Statistical Offices from GSA space to non-GSA space. On a comparable basis the cost is $109,000 for FY 1994 and $109,000 for FY 1995.

b/ The transfer to the Office of Advocacy and Enterprise is due to the transfer of an EEO specialist. On a comparable basis the cost is $14,000 for FY 1994 and $14,000 for FY 1995.

SUMMARY OF INCREASES AND DECREASES
(On basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Costs | Program Changes | 1995 Estimated |
|---|---|---|---|---|
| Increased Data Collection Costs | $15,600,000 | -- | + $455,000 | $16,055,000 |
| Distributed Database System | 500,000 | -- | + 1,100,000 | 1,600,000 |
| Pesticide Data (Food Safety) | 3,500,000 | -- | + 3,300,000 | 6,800,000 |
| Restricted Use Pesticides | 100,000 | -- | + 2,900,000 | 3,000,000 |
| Increased Operating Costs | -- | -- | + 791,000 | 791,000 |
| Reduction in Administrative Expenses | -- | -- | - 273,000 | - 273,000 |
| Staff-Year Reduction | -- | -- | - 1,147,000 | - 1,147,000 |
| All Other | 62,159,000 | + $515,000 | -- | 62,674,000 |
| Total Available | 81,859,000 | + 515,000 | + 7,126,000 | 89,500,000 |

PROJECT STATEMENT
(On basis of adjusted appropriation)

| Project | 1993 Actual Amount | 1993 Actual Staff-Years | 1994 Estimated Amount | 1994 Estimated Staff-Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff-Years |
|---|---|---|---|---|---|---|---|
| 1. Agricultural Estimates | $77,072,200 | 975 | $78,363,000 | 984 | +$7,601,000 (1) | $85,964,000 | 990 |
| 2. Statistical Research and Service | 3,882,000 | 47 | 3,496,000 | 43 | +40,000 (2) | 3,536,000 | 43 |
| Unobligated balance | 95,945 | -- | -- | -- | -- | -- | -- |
| Total available or estimate | 81,050,145 | 1,022 | 81,859,000 | 1,027 | +7,641,000 | 89,500,000 | 1,033 |
| Transfer from Departmental Administration | -46,145 | -- | -109,000 | -- | | | |
| Transfer to the Office of Personnel | -- | -- | +14,000 | -- | | | |
| Total Appropriation | 81,004,000 | -- | 81,764,000 | -- | | | |

NOTE: Under the Secretary's reorganization plan, in 1995 3 staff-years and $340,000 for the Economic Analysis Staff will appear as part of Executive Operations under Departmental Administration.

## EXPLANATION OF PROGRAM

The National Agricultural Statistics Service has two major activities, authorized by the Agricultural Marketing Act of 1946, as follows:

-- Agricultural Estimates - This area includes conducting scientifically designed surveys; summarizing and analyzing survey data; developing estimates of production, supply, price, and other aspects of the agricultural economy; and issuing official USDA national, State and county estimates and reports relating to acreage, types and production of farm crops, number of livestock on farms, livestock products, stocks of agricultural commodities, value and utilization of farm products, farm labor, prices received and paid by farmers, agricultural chemical use, and other subjects as needed. Estimates are published in almost 400 Federal reports each year. All information is made available to the public at scheduled release times, providing the basic, unbiased data necessary to maintain an orderly association between the consumption, supply, marketing, and input sectors of agriculture.

-- Statistical Research and Service - Research is conducted to improve the statistical methods and techniques used in developing agricultural statistics. This research is directed toward higher quality survey data, less burden to data suppliers, better estimates to data users, and greater efficiency in the use of available resources. Consulting services in the areas of survey methodology, statistical methodology, and remote sensing technology are provided both gratis and on a reimbursable basis.

OIG Reports:

OIG Audit Report No. 26099-1-FM, August 1993, "National Agricultural Statistics Service Management and Control of Local Area Networks and Statistical Forecasting Data." (Audit Report)

NASS is in general agreement with the findings in this report, and all attainable recommendations are expected to be implemented during calendar year 1994.

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A net increase of $7,601,000 for agricultural estimates consisting of:

(a) An increase of $489,000 for pay costs for the 1.6 percent fiscal year 1995 pay raise.

(b) An increase of $769,000 which reflects a 2.6 percent increase in nonsalary costs.

Need for Change. These funds are necessary to offset increased operating costs. Continued absorption of these costs will severely affect the quality and quantity of our survey programs.

Nature of Change. This increase will be used to maintain a credible level of services. Examples of projected cost increases are for such critical items as travel, postal rates, supplies, equipment, maintenance, and ADP related costs.

(c) An increase of $455,000 for Increased Data Collection Costs ($15,600,000 available in 1994).

Need for Change. The costs of collecting survey data for the Nation's agricultural sector continued to increase during FY 1993. Enumerators employed by the National Association of State Departments of Agriculture (NASDA) each year make almost a million personal contacts with farmers, ranchers, and agribusiness operators. The data they collect form the foundation of the NASS survey program. As part of a long-term cooperative effort, NASS provides technical guidance and training to NASDA enumerators and reimburses NASDA for associated salaries and other expenses, which amounted in FY 1993 to over $16.9 million, 21 percent of the NASS budget. This work provides part-time employment for more than 3,200 persons who live mostly in rural areas.

Higher NASDA costs due to salary increases are not covered by Federal pay cost increases. This additional funding is necessary for NASS to maintain the current sample sizes and reliability of USDA's basic crop and livestock estimating program. If the budget is not adjusted to cover this "real" shortfall, NASS must absorb this cost and make corresponding reductions in sample sizes, States surveyed, frequency of surveys, and commodities estimated.

Nature of Change. This funding will cover the added data collection costs that occurred in FY 1993 due to salary and per diem increases.

(d) An increase of $1,100,000 for Distributed Data Base Systems ($500,000 available in 1994).

Need for Change. NASS proposes to reduce mainframe processing costs by distributing its farm list maintenance systems and survey processing systems to local area networks (LAN's) in its State Statistical Offices (SSO's). This initiative promises substantial cost savings to the Government and will make the NASS list frame system more responsive to changes in survey procedures. In addition, farmer response burden can be reduced and data quality improved if individual historical survey data are available as proposed by this relational data base system. Current list frame activities are being processed through a national telecommunications network, contracted mainframe computing services, and software developed in the late seventies and early eighties. The reengineered systems would relocate data to the SSO's, where they would be processed through local client/server data base systems. This distributed processing environment would significantly reduce the cost

of mainframe communications and processing, and would make the systems closer and more responsive to the end-user.

The current batch application systems used to process surveys rely on outdated, contracted-out mainframe computer technology that does not capitalize on NASS's LAN capabilities or client/server computing. Interactive survey editing systems and reengineered computer-aided telephone interviewing systems would use a relational data base of historical survey data, comprised of individually reported data from every NASS survey conducted in the most recent years. This approach would promote more reuse of previously reported survey data, resulting in improved cooperation by reducing farmers' reporting burden through the elimination of redundant questions.

Following procurement and installation of the necessary technology and implementation of the name and address data bases and the historical survey data base, it will be feasible to distribute processing of many national probability surveys currently done on a mainframe network. Interactive screen driven analysis and summarization will be employed, which will replace separate remote batch processing. Further reductions in mainframe processing costs will occur.

Nature of Change. This funding request would cover consulting assistance and purchase of the technology needed to distribute the data base systems to LAN's in the SSO's. Most of the resources needed for this project are for staffing, which will be absorbed by current staff. Each of these LAN's would be enhanced to include a client/server relational data base system, a data base server, and related tools. This proposal exploits the characteristics of the LAN architecture since the client/server systems can be added directly to the existing LAN's.

The LAN-based systems will incorporate advances in relational data base processing to accommodate changes in survey procedures made over the last decade. These changes will include the use of computer assisted telephone interviewing with interactive edits, the integration of multiple surveys, and refined procedures for handling primary farm operators in today's increasingly complex farm operations.

The total cost will be recovered in less than 5 years through reduced NASS funding. Contingent upon approval of this initiative, in FY 1996 NASS will reduce its budget by $250,000, leaving $850,000, plus the $250,000 savings in processing costs to complete the system in all States. NASS will further reduce its budget by $1.1 million, plus an additional $250,000 for a reduction of $1.35 million in FY 1997.

(e) An increase of $3,300,000 and 18 staff years for additional pesticide use data ($3,500,000 available in 1994).

Need for Change. The Secretary of Agriculture and the Administrator of the Environmental Protection Agency (EPA) have agreed to work jointly toward the reduction of pesticide use. In order to accurately analyze the impact of chemical use and make recommendations based on fact, reliable data are needed for crops and States in addition to the pesticide use data currently provided under the Pesticide Data Program. Sound pesticide regulations depend on quality data to support informed decision making. Although reliable use data on major food crops are currently being provided by NASS and the Pesticide Data Program, the EPA and other agencies have requested pesticide use data on additional crops and States. Detailed data such as date of application, target pests, and associated crop yields would be provided. There is a particular shortage of use data on the so called "minor" or specialty crops. Policy determinations by chemical manufacturers as to the potential

markets for "minor" crop pesticides can determine whether or not producers of these commodities stay in business.

The availability of accurate pesticide use information also enables EPA to make more realistic estimates in setting both dietary and nondietary tolerances. To date, there is very limited reliable data on chemicals that are used after crops leave the farm (postharvest use). The EPA and other agencies have requested NASS to collect use data from packing-houses, storage facilities, etc., to account for the missing link of pesticide use between the farm gate and consumers.

Nature of Change. This increase will allow NASS to expand the coverage of States and crops as called for by the Administration. Specifically, NASS would expand its chemical use surveys to include 13 additional States, about double the number of States currently in the program, and will add 10 additional crops.

This increase will also allow NASS to collect data on chemicals used on commodities after leaving the farm. In the first year NASS will collect chemical use data in 13 States on apples and potatoes between farm and market. NASS will rotate the collection of postharvest chemical use data to other selected commodities each year.

(f) An increase of $2,900,000 and 12 staff years for restricted use pesticide data ($100,000 available in 1994).

Need for Change. Section 1491 of the Food, Agriculture, Conservation, and Trade Act of 1990 requires all certified applicators of restricted use pesticides to maintain records of usage. This section also requires the Secretary of Agriculture and the Administrator of EPA to survey the records to develop a data base sufficient to publish comprehensive reports on agricultural and nonagricultural pesticide use to be made available to Congress each year. The final rules implementing Section 1491 were published in the Federal Register on April 9, 1993, and became effective May 10, 1993.

The EPA recently received special funding from Congress to implement the nonagricultural survey requirements under Section 1491. This action places USDA in the untenable position of not being funded to do the agricultural portion. USDA and EPA should be in a position to work together to properly identify restricted pesticide use. In fact, both the 1990 Farm Bill and the recent Memorandum of Understanding between USDA and EPA stipulate that the two Departments work together on this program.

Nature of Change. This increase will allow NASS to implement the provisions of Section 1491 of the Food, Agriculture, Conservation, and Trade Act of 1990 by conducting surveys that provide information on restricted use pesticides in all agricultural areas on a national basis. Currently, all pesticide surveys are crop specific and State specific. This increase will allow for inclusion of whole farm pesticide use and non-farm agricultural use in all areas. The 1995 funding will permit NASS to account for total agricultural restricted pesticide use by product and by commodity for the Nation.

NASS will survey private applicators and collect information on all chemicals used (restricted and nonrestricted) on the farm. This includes chemicals used on crops, livestock, pasture, storage facilities, and every other use on the farm. In addition, a separate sample of commercial applicators will be used to collect chemicals used, both on-farm and off-farm, for nontraditional uses defined as agricultural, e.g., forest pest control, packing houses, seed treatment, etc. The survey will therefore contribute significant additional

chemical use information to the data base that has been assembled as part of the water quality program.

(g) A decrease of $265,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $265,000.

Nature of Change. In order to achieve these savings, NASS will reduce interstation transfers, field staff travel to Headquarters for Agricultural Statistics Boards and other meetings, and other areas such as travel, training, supply purchases, printing and reproduction costs, utility usage, and equipment replacement.

(h) A decrease of $1,147,000 and 24 staff-years for a reduction in Federal employment costs.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment by FY 1998, NASS is reducing employment in FY 1995 by 2.1 percent from its FY 1993 base.

Nature of Change. To achieve the reduction, NASS will streamline its operations. This reduction will be accomplished through attrition, reductions in grade GM-14 and higher positions, and moving positions from Headquarters to field offices, where they will be filled at lower grades. This reduction excludes staff years associated with program increases.

(2) A net increase of $40,000 for statistical research and service consisting of:

(a) An increase of $26,000 for pay costs for the fiscal year 1995 pay raise.

(b) An increase of $22,000 which reflects a 2.6 percent increase in nonsalary costs.

Need for Change. These funds are necessary to offset increased operating costs. Continued absorption of these increased operating costs will severely affect the quality and quantity of the NASS statistical research programs.

Nature of Change. This increase will be used to maintain the current level of statistical research services. Examples of projected cost increases are for critical expenditures such as travel, postal rates, supplies, equipment, maintenance, and ADP related costs.

(c) A decrease of $8,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $8,000.

Nature of Change. In order to achieve these savings, NASS will reduce interstation transfers, travel to field offices, and other areas such as training, supply purchases, printing and reproduction costs, utility usage, and equipment replacement.

NATIONAL AGRICULTURAL STATISTICS SERVICE
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Alabama..... | $855,316 | 14 | $872,000 | 14 | $948,000 | 14 |
| Alaska..... | 572,053 | 2 | 583,000 | 2 | 634,000 | 2 |
| Arizona..... | 646,958 | 9 | 660,000 | 9 | 717,000 | 9 |
| Arkansas..... | 1,125,314 | 16 | 1,148,000 | 16 | 1,248,000 | 16 |
| California..... | 3,328,129 | 33 | 3,297,000 | 34 | 3,580,000 | 34 |
| Colorado..... | 1,384,421 | 22 | 1,412,000 | 23 | 1,535,000 | 25 |
| Delaware..... | 82,094 | 1 | 84,000 | 1 | 91,000 | 1 |
| District of Columbia..... | 31,110,693 | 379 | 31,351,000 | 375 | 34,610,000 | 377 |
| Florida..... | 1,289,286 | 17 | 1,315,000 | 17 | 1,429,000 | 18 |
| Georgia..... | 1,203,226 | 16 | 1,227,000 | 16 | 1,333,000 | 16 |
| Hawaii..... | 445,242 | 8 | 454,000 | 8 | 493,000 | 8 |
| Idaho..... | 1,078,721 | 15 | 1,102,000 | 15 | 1,198,000 | 15 |
| Illinois..... | 1,631,025 | 18 | 1,663,000 | 19 | 1,807,000 | 19 |
| Indiana..... | 1,210,839 | 16 | 1,235,000 | 16 | 1,342,000 | 16 |
| Iowa..... | 1,572,383 | 18 | 1,604,000 | 19 | 1,743,000 | 19 |
| Kansas..... | 1,461,292 | 18 | 1,490,000 | 19 | 1,619,000 | 19 |
| Kentucky..... | 979,548 | 14 | 999,000 | 14 | 1,086,000 | 14 |
| Louisiana..... | 950,549 | 13 | 969,000 | 13 | 1,053,000 | 13 |
| Maryland..... | 754,058 | 11 | 769,000 | 11 | 836,000 | 11 |
| Michigan..... | 1,472,464 | 18 | 1,461,000 | 19 | 1,588,000 | 19 |
| Minnesota..... | 1,545,378 | 17 | 1,576,000 | 17 | 1,713,000 | 17 |
| Mississippi.... | 1,205,726 | 15 | 1,230,000 | 15 | 1,337,000 | 15 |
| Missouri..... | 1,308,882 | 17 | 1,335,000 | 17 | 1,451,000 | 17 |
| Montana..... | 782,561 | 12 | 798,000 | 12 | 867,000 | 12 |
| Nebraska..... | 1,479,991 | 18 | 1,509,000 | 19 | 1,640,000 | 19 |
| Nevada..... | 218,932 | 4 | 223,000 | 4 | 242,000 | 4 |
| New Hampshire.. | 928,272 | 14 | 947,000 | 14 | 1,029,000 | 14 |
| New Jersey..... | 736,304 | 11 | 751,000 | 11 | 816,000 | 11 |
| New Mexico..... | 571,587 | 8 | 583,000 | 8 | 634,000 | 8 |
| New York..... | 1,321,189 | 16 | 1,347,000 | 16 | 1,464,000 | 16 |
| North Carolina. | 1,436,973 | 15 | 1,379,000 | 15 | 1,499,000 | 15 |
| North Dakota... | 1,072,749 | 14 | 1,094,000 | 14 | 1,189,000 | 14 |
| Ohio..... | 1,362,517 | 18 | 1,390,000 | 18 | 1,511,000 | 18 |
| Oklahoma..... | 1,001,710 | 14 | 1,022,000 | 14 | 1,111,000 | 14 |
| Oregon..... | 1,141,629 | 14 | 1,164,000 | 14 | 1,265,000 | 14 |
| Pennsylvania... | 1,020,142 | 16 | 1,040,000 | 16 | 1,130,000 | 16 |
| South Carolina. | 723,918 | 11 | 738,000 | 11 | 802,000 | 11 |
| South Dakota... | 1,026,678 | 15 | 1,047,000 | 15 | 1,138,000 | 15 |
| Tennessee..... | 939,134 | 13 | 958,000 | 13 | 1,041,000 | 13 |
| Texas..... | 2,652,714 | 27 | 2,629,000 | 28 | 2,857,000 | 29 |
| Utah..... | 571,293 | 10 | 583,000 | 10 | 634,000 | 10 |
| Virginia..... | 1,000,933 | 13 | 996,000 | 13 | 1,082,000 | 13 |
| Washington..... | 1,103,196 | 15 | 1,125,000 | 15 | 1,223,000 | 15 |
| West Virginia.. | 509,316 | 8 | 519,000 | 8 | 564,000 | 8 |
| Wisconsin..... | 1,510,492 | 19 | 1,540,000 | 20 | 1,674,000 | 20 |
| Wyoming..... | 628,373 | 10 | 641,000 | 10 | 697,000 | 10 |
| Subtotal, Available or Estimate. | 80,954,200 | 1,022 | 81,859,000 | 1,027 | 89,500,000 | 1,033 |
| Unobligated Balance..... | 95,945 | -- | -- | -- | -- | -- |
| Total, Available or estimate | 81,050,145 | 1,022 | 81,859,000 | 1,027 | 89,500,000 | 1,033 |

# NATIONAL AGRICULTURAL STATISTICS SERVICE

## STATUS OF PROGRAM

The National Agricultural Statistics Service (NASS) administers the United States Department of Agriculture's (USDA) program of collecting and publishing current national and State agricultural statistics. Statistical data provided by the Service on the Nation's agriculture are essential in making effective policy, production, and marketing decisions.

NASS programs are organized in the following major areas: (1) agricultural estimates, (2) statistical research and service, and (3) work performed for others.

## AGRICULTURAL ESTIMATES

Current Activities: Agricultural production and marketing data are collected, summarized, analyzed, and published for a wide range of items including: number of farms and land in farms; acreage, yield, production, and stocks of grains, hay, oilseeds, cotton, potatoes, tobacco, fruits, vegetables, floriculture, and selected specialty crops; inventories and production of hogs, cattle, sheep and wool, goats and mohair, mink, catfish, trout, poultry, eggs, and dairy products; prices received by farmers for products, prices paid for commodities and services, and related indexes; cold storage supplies; agricultural chemical use; and other related areas of the agricultural economy and rural America.

Thousands of farmers, ranchers, agribusinesses, and others voluntarily respond to surveys about crops, livestock, and other agricultural activities. These surveys are supplemented by field observations, objective yield counts and measurements, and other data to provide reliable information.

The estimating program is conducted through 45 State Statistical Offices (SSO's) servicing all 50 States. The majority of these SSO's are operated as joint State-Federal offices. The cooperative funding arrangements with State agencies provide for development of additional State and county data to supplement and complement information produced with Federal resources.

Estimates for approximately 120 crops and 45 livestock items are published in almost 400 reports each year through the NASS Agricultural Statistics Board (ASB). All information is made available to the public and news media at scheduled release times. A user fee system covers the costs of maintaining mailing lists, printing, and mailing the releases. Survey respondents, news media, congressional offices, and other Federal agencies are not required to pay for ASB releases.

The principal program goals are to: (1) provide agricultural data and other statistical services needed for commercially important segments of the agricultural industry; (2) provide the necessary statistics in support of informed government policy development and program implementation, especially statistics mandated by law; (3) increase the accuracy, dependability, and public usefulness of national, State, and county data; (4) conduct program reviews to ensure that statistical information is collected and published in a timely and efficient manner, is relevant, and satisfies customer needs; (5) minimize the time between data collection and release; (6) improve information distribution; and (7) reduce survey costs and response burden on individuals and firms.

Selected Examples of Recent Progress: Recent accomplishments under this budget activity are cited below by project:

Response to Weather-Related Disasters:

1. Enhanced Survey Coverage. NASS intensified its monthly agricultural survey efforts in August through November for nine Midwestern States to determine the effect of the excessive rains and resulting floods on crop acres planted and to be harvested. The added data collection efforts in August resulted in

NASS contacting a record number of farmers for any monthly survey. With the continued concerns in these States and the drought in the Southeast, NASS extended additional survey work monthly from September through November.

2. Flood and Drought Area Vegetative Maps. Color map products based on polar orbiting weather satellite data were created and used to monitor crop conditions during the 1993 growing season. These color maps depicted changes in vegetation vigor by comparing 1993 vegetative indices to a similar period in 1992. Although limited by the data resolution, the maps were quite useful for reviews of the flood and drought regions.

Additional estimates and services:

1. Sheep On Feed reports. In 1993, at the request of Congress and the sheep industry, NASS initiated March and November Sheep-on-Feed surveys in 16 States, accounting for almost 90 percent of the U.S.-fed sheep and lamb inventory. Additional questions were also included on the existing January 1 Sheep Inventory Survey to obtain weight group information for lambs on feed in the major States.

2. Commercial Wool Stocks Survey. A special survey was conducted on January 1, 1993 to obtain commercial wool stocks by grade. These data were useful to USDA analysts and data users.

3. State level wage rates. Starting with the October 1992 Farm Labor report, annual average wage rates for field and livestock workers were published by State. Previously, these wage rates were only published at the regional level.

4. New pesticide prices. In April 1993, NASS published prices for 16 additional pesticides as part of USDA's expanded data program on farm chemicals.

5. Nursery and greenhouse study in Georgia. An in-depth nursery and greenhouse study was conducted in Georgia in late 1993. This study, similar to a study conducted in Oregon, will provide data on acreage in production, gross sales, and other marketing and wage information. The study will be published in January 1994 and will highlight the importance of this industry in Georgia.

Increasing data accuracy and dependability:

1. Farm Production Expenditure Estimates. Farm production expenditure estimates were developed using indications from the annual Farm Costs and Returns Surveys (FCRS), NASS Prices Paid by Farmers Survey, farm input information from private and public sources, and Bureau of Census benchmark data. Prior to development of the official expenditure estimates, NASS published aggregate survey data from the FCRS. These data were highly variable from year to year given the relatively small samples.

2. Grazing Fee Estimates. NASS began publishing grazing fee estimates for privately leased land in 17 Western States. Survey averages had been published previously. In addition to the data from a survey of ranchers, estimates take into consideration local range conditions, changes in forage values, and comparison with prior year's data.

Reviewing commodity programs:

1. Cost savings identified. During fiscal year 1993, NASS discontinued the monthly Celery report. This saved printing 11,600 copies of the Celery report annually. Celery estimates are now published in the periodic Vegetables reports. The preliminary Farm Production Expenditures report was discontinued, saving the printing of 1,300 copies. NASS also reduced the frequency of two other reports last year. The Farm Labor report changed from monthly to quarterly, saving the printing of 16,800 copies. The Vegetables report was reduced from 14 to 6 issues, saving the printing of 7,900 copies.

These changes were made to permit NASS to stay within its fiscal year 1993 funding authority.

2. Increased use of administrative data. Savings were made possible by developing procedures to use Agricultural Marketing Service livestock price quotes for monthly average livestock prices used to compute the prices received index. This change was made to permit NASS to stay within its fiscal year 1993 funding authority.

Environmental data expanded:

1. Expanded coverage on the Vegetable Chemical Use Survey. The Vegetable Chemical Use Survey, expanded from 5 States in 1991 to 14 States in 1993, and the Cropping Practices Survey, conducted in 32 States for field crops, provide statistically reliable State-level fertilizer and pesticide use information that has not been previously available.

2. Additional Water Quality Area Studies. The Economic Research Service (ERS) funded Water Quality Area Studies Project was completed in four additional water basins in 1993 for a total of 13 areas studied in the last 4 years.

Customer services and data handling:

1. Enhanced data user knowledge and input. Public Data Users Meetings were held in four States: Portland, Oregon; Grand Rapids, Michigan; Mt. Laurel, New Jersey; and Sacramento, California. The 1993 meetings focused on USDA specialty commodities, farm labor, and chemical use statistics. The meetings provided a forum for the public to review current reports and estimating procedures and to provide suggestions for improving the agricultural statistics program.

2. More electronic reports issued. In addition to electronically disseminating NASS reports through the USDA's Computerized Information Delivery Service, popular reports are now available to the public on a ERS/NASS electronic bulletin board. NASS has also developed additional data products on diskettes and is collaborating with USDA's Extension Service to make NASS reports available to a wider range of data users through the worldwide Internet system. This service is available now for the monthly Crop Production report and will be extended to include remaining NASS reports in 1994. Meetings were also held with the National Agricultural Library to explore ways to improve dissemination of NASS reports to the international community.

3. Agricultural Statistics publication reviewed. A committee of USDA agency representatives performed a comprehensive review of the Agricultural Statistics publication. The committee examined items such as tables that could be eliminated, new tables to be added, and the addition of graphic presentations.

Business process re-engineering:

1. Improving the list sampling frame. NASS embarked on two major projects for the improvement and maintenance of the NASS list sampling frame using client/server relational data base technology. The first project will migrate the list sampling frame from a mainframe computer to local area networks in NASS field offices. The second project will simplify and improve the process for transfer of data from the Agricultural Stabilization and Conservation Service to NASS.

2. Re-engineering data collection processes. NASS also began a major initiative to improve handling of manual review, computerized editing, analysis, and summary of survey data. Manual data review processes will be automated and the current computer processing will be moved from a leased mainframe to microcomputers on local area networks. Two studies were conducted to

evaluate interactive data editing in selected State offices. Staff productivity improved up to 16 percent over traditional paper-based methods. This represents the first step toward a goal of "downsizing" all survey processing.

3. New survey sampling procedures. NASS is implementing a significant new random sampling procedure for major surveys in all States which maximizes the dispersion of samples among different respondents. Each sampled individual will now have a reduced number of survey contacts during the year and fewer repeat contacts for the same survey 2 years in a row.

4. Wide area network. A wide area network (WAN) was installed connecting each of NASS's 46 different locations. The WAN connects 45 different local area networks (LAN) in the NASS field offices to the Headquarters LAN's in Washington, D.C. The WAN provides electronic mail capability between every employee in NASS, regardless of location. The E-Mail tool has improved communications and cut down considerably on the amount of paper used in routine day-to-day communications.

## STATISTICAL RESEARCH AND SERVICE

Selected Examples of Recent Progress: Recent accomplishments under this budget activity are cited below by project:

Improving operational programs:

1. Utilizing administrative data from non-NASS sources. NASS staff members are researching and in the early stages of implementing a procedure to model non-NASS administrative data to estimate monthly milk production. NASS will eliminate up to eight monthly surveys in affected States thereby reducing cost and respondent burden.

2. Evaluation of improved analysis procedures. NASS research staff are evaluating the use of an "Expert" automatic data processing system to rapidly analyze survey results and reduce human resource needs to prepare Agency commodity reports.

3. Evaluation of California environmental program administration information. NASS staff members are also evaluating the use of the California regulatory program information as a replacement for collecting environmental information from a sample of producers in separate surveys.

4. Evaluation of sampling and estimation procedures for the Chemical Use and Farm Finance Survey. NASS is evaluating an integrated procedure to combine several separate surveys into one consolidated data collection effort.

5. Computer assisted personal interviewing (CAPI). CAPI has been used in an operational environment on a small pilot scale for three of NASS's surveys. The June 1993 experience with three enumerators indicated potentially large time savings (up to 70 percent) in the office when editing CAPI-collected questionnaires. In addition, enumerators continued using CAPI even after the formal test, indicating their desire to use this new technology. This research will be continued in 1994 on a subsample basis in Indiana and Pennsylvania and will include an evaluation of survey management procedures, such as data transmission, check-in, sample distribution, etc., in addition to training materials.

6. Satellite data for crop acreage estimation. Acreage estimates based on Landsat satellite digital imagery were made for the 1993 crop season in Arkansas. These estimates included August 1 indications for rice and cotton plus December 1 end-of-season indications for rice, cotton, and soybeans. Crop county estimates and color thematic maps based on similar work in three Mississippi Delta States during the 1992 crop season were created and distributed.

7. Geographic information system (GIS) applications. Significant progress toward building an Agricultural Chemical Use Data Base based on GIS principles was made in 1993. This data base will contain geo-referenced survey data for crops, vegetables, and fruit chemical use and will allow GIS analyses to answer Departmental, congressional, and other data user queries on water quality data.

Statistical consulting and services:

1. Assistance to the Human Nutrition Information Service (HNIS). Statistical consulting assistance was provided on the sampling design for future HNIS dietary surveys. Advice was also given on the analysis of survey data, the creation of adjustments for survey nonresponse, the development of reasonable measures of survey accuracy, the estimation of the distribution of usual dietary intakes, and the revision of the nutrient data bank program.

2. Assistance to the Agricultural Marketing Service (AMS). NASS staff provided statistical assistance and advice for the residue testing component of the Pesticide Data Program. This involved revising the sampling procedures of fresh fruit and vegetables selected in the wholesale market and determining statistically correct weighting schemes for linking the survey samples to the total population of interest.

3. Consultation to University of Maryland, Eastern Shore. NASS staff provided statistical consultation to Professor Anagrah Shaw, University of Maryland/Eastern Shore, in support of her efforts to test the effectiveness of various clothing fabrics for minimizing pesticide contact with skin during applications.

4. Other consultation to USDA agencies. In addition to HNIS and AMS, NASS provided statistical consultation and advice to the Agricultural Stabilization and Conservation Service, the USDA Office of Advocacy and Enterprise, and the USDA Equal Opportunity/Civil Rights Critical Element Review Committee.

## WORK PERFORMED FOR OTHERS

Selected Examples of Recent Progress: Recent accomplishments under this budget activity are cited below by project:

Environmental activities expanded:

1. New environmental survey. The Environmental Monitoring and Assessment Program (EMAP) is a new Environmental Protection Agency funded program with technical support from the Agricultural Research Service. EMAP is designed to develop ecological indicators to monitor the long-term health of agricultural ecosystems. NASS has assisted by conducting pilot surveys to test sampling methodology.

New surveys undertaken:

1. Special State surveys conducted. In cooperation with State Departments of Agriculture and industry groups, NASS conducted 125 special surveys in 1993 covering such issues as farm safety, pesticide use, exotic livestock, nursery/horticulture, farm finance, and specialty vegetable crops.

Special Surveys Done in 1993 by NASS State Statistical Offices:

| Type | Number |
|---|---|
| Crops, Specialty Crops, Vegetables, etc. | 38 |
| Fruit | 20 |
| County Estimates | 13 |
| Pesticide Use | 11 |
| Livestock | 9 |
| Safety/Health, Disability | 8 |
| Nursery/Horticulture | 5 |
| Farm Finance | 4 |
| Misc. - All other | 17 |
| **TOTAL** | 125 |

2. Farmer Opinion Survey. NASS conducted a Farmer Opinion Survey of USDA publications and information for the Office of Public Affairs (OPA). Data were collected for 50 States in late August. The survey results will be used by OPA to improve the USDA information delivery service.

3. National Animal Health Monitoring System. The purpose of this survey program, funded by the Animal and Plant Health Inspection Service, is to collect and analyze animal health data to provide scientifically sound and current information on the health status of U.S. livestock and poultry. The work performed in fiscal year 1993 consisted of a beef cattle project.

4. Pilot agricultural survey for Native Americans. NASS staff and the Native American Intertribal Agricultural Council are jointly developing a pilot agricultural survey system for Native American agriculture. The pilot survey is to be conducted in June of 1994 in the State of Montana.

International activities:

1. International assistance provided. NASS provided technical assistance and training to improve agricultural statistics programs in a number of developing countries. Long-term resident assistance was provided in Pakistan while short-term assignments supported work in several other countries, including Egypt, Bulgaria, Poland and Morocco. The NASS International Statistics course, conducted in Washington, D.C., trained 17 persons from seven countries. Extended training by NASS staff was also provided to the department head of Agricultural Statistics, National Statistical Institute, Portugal. This 4-week training course covered remote sensing, image processing, geographic information systems, area frame construction, and sampling plus general overviews of the Agency's statistical systems.

## PASSENGER MOTOR VEHICLES

The 1995 Budget Estimates propose the purchase of 1 additional motor vehicle and the replacement of 2 passenger motor vehicles.

The passenger motor vehicles of the National Agricultural Statistics Service are used (where common carrier of GSA vehicles are not feasible) for necessary field travel in carrying out the mission of the agency. All passenger motor vehicles are located at various field offices.

Additional passenger motor vehicle. The one additional passenger motor vehicle is for the NASS field offices. GSA has gradually closed many of its motor pool facilities making it more difficult for NASS personnel to obtain cars when needed. The use of common carrier is not feasible in carrying out the program of NASS.

Replacement of passenger motor vehicles. Replacement of 2 of the 6 vehicles now in operations is proposed. These 6 vehicles are located in 5 field locations and are necessary to meet the transportation requirements inherent in carrying out the agency's program. The vehicles proposed to be replaced will have passed the minimum replacement standards of 6 years of age or 60,000 miles prescribed by the General Services Administration.

Age and mileage data for motor vehicles on hand as of September 30, 1993, are as follows:

| | Age Data | | | Mileage Data | |
|---|---|---|---|---|---|
| Age-Year Model | Number of Vehicles | Percent of Total | Lifetime Mileage (thousands) | Number of Vehicles | Percent of Total |
| 1988 or older | 1 | 17 | 80-100 | 0 | 0 |
| 1989 | 4 | 67 | 60-80 | 0 | 0 |
| 1990 | 0 | 0 | 40-60 | 5 | 83 |
| 1991 | 0 | 0 | 20-40 | 0 | 0 |
| 1992 | 1 | 17 | Under 20 | 1 | 17 |
| 1993 | 0 | 0 | Total | 6 | 100 |
| Total | 6 | 100 a/ | | | |

a/ Column does not add because of rounding.

# FOOD SAFETY AND INSPECTION SERVICE

## Purpose Statement

The Food Safety and Inspection Service was established on June 17, 1981, by Secretary's Memorandum No. 1000-1 issued pursuant to Reorganization Plan No. 2 of 1953 (7 U.S.C. 2201).

The major objective of the Agency is to ensure that the Nation's commercial supply of meat and poultry products is safe, wholesome, and correctly labeled and packaged, as required by the Federal Meat Inspection Act and the Poultry Products Inspection Act.

The Meat and Poultry Inspection Program of the Food Safety and Inspection Service provides in-plant inspection of all domestic establishments preparing meat or poultry products for sale or distribution in commerce; reviews foreign inspection systems and establishments that prepare meat or poultry products for export to the United States; and provides technical and financial assistance to States which maintain meat and poultry inspection programs equal to the Federal inspection program.

During 1993, the Agency maintained central offices in the Washington metropolitan area, five regional offices, 26 area offices, and a nationwide network of inspectors in approximately 6,400 establishments (including official import facilities) in 50 States, Puerto Rico, American Samoa, Guam, and the Virgin Islands. Much of the work is conducted in cooperation with Federal, State and municipal agencies, as well as private industry. As of September 30, 1993, the Agency employment totaled 9,307 permanent full-time employees and 927 other employees. Of these, 722 permanent full-time employees and 96 other employees were located in the central offices, and 458 permanent full-time employees and 28 other employees were in area and regional offices. The balance of 8,127 permanent full-time employees and 803 other employees were in field locations.

FOOD SAFETY AND INSPECTION SERVICE

Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Salaries and Expenses | $493,655,000 | 9,524 | $516,738,000 | 9,614 | $534,223,000 | 9,779 |
| Obligations under other USDA appropriations: | | | | | | |
| Allocation from: Hazardous Waste Management | 120,000 | -- | 316,000 | -- | 290,000 | -- |
| APHIS for blood samples (MPI) | 699,982 | -- | 1,000,000 | -- | 1,000,000 | -- |
| Total, Agriculture Appropriations | 494,474,982 | 9,524 | 518,054,000 | 9,614 | 535,513,000 | 9,779 |
| Non-Federal Funds: | | | | | | |
| Reimbursements for Meat and Poultry Inspection | 62,999,324 | 230 | 66,074,000 | 230 | 68,000,000 | 230 |
| Trust Funds for Meat and Poultry Inspection | 2,039,839 | 33 | 2,043,000 | 33 | 2,043,000 | 33 |
| Total, Non-Federal Funds | 65,039,163 | 263 | 68,117,000 | 263 | 70,043,000 | 263 |
| Total, Food Safety and Inspection Service | 559,514,145 | 9,787 | 586,171,000 | 9,877 | 605,556,000 | 10,042 |

FOOD SAFETY AND INSPECTION SERVICE

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | 1993 Head-quarters | 1993 Field | 1993 Total | 1994 Head-quarters | 1994 Field | 1994 Total | 1995 Head-quarters | 1995 Field | 1995 Total |
|---|---|---|---|---|---|---|---|---|---|
| ES-6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ES-5 | 13 | 1 | 14 | 13 | 1 | 14 | 13 | 1 | 14 |
| ES-4 | 6 | 2 | 8 | 6 | 2 | 8 | 6 | 2 | 8 |
| ES-3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ES-2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| ES-1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| GS/GM-15 | 44 | 10 | 54 | 44 | 10 | 54 | 42 | 10 | 52 |
| GS/GM-14 | 96 | 44 | 140 | 95 | 44 | 139 | 91 | 44 | 135 |
| GS/GM-13 | 204 | 266 | 470 | 204 | 266 | 470 | 195 | 266 | 461 |
| GS-12 | 93 | 930 | 1,023 | 92 | 932 | 1,024 | 89 | 936 | 1,025 |
| GS-11 | 49 | 446 | 495 | 49 | 449 | 498 | 47 | 454 | 501 |
| GS-10 | 1 | 158 | 159 | 1 | 158 | 159 | 1 | 158 | 159 |
| GS-9 | 47 | 2,318 | 2,365 | 47 | 2,388 | 2,435 | 46 | 2,396 | 2,442 |
| GS-8 | 4 | 1,217 | 1,221 | 4 | 1,231 | 1,235 | 4 | 1,231 | 1,235 |
| GS-7 | 73 | 3,048 | 3,121 | 73 | 3,078 | 3,151 | 72 | 3,085 | 3,157 |
| GS-6 | 45 | 59 | 104 | 45 | 59 | 104 | 45 | 59 | 104 |
| GS-5 | 55 | 473 | 528 | 55 | 473 | 528 | 54 | 473 | 527 |
| GS-4 | 19 | 87 | 106 | 19 | 87 | 106 | 19 | 87 | 106 |
| GS-3 | 1 | 11 | 12 | 1 | 11 | 12 | 1 | 11 | 12 |
| GS-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ungraded Positions | 3 | 14 | 17 | 3 | 14 | 17 | 3 | 14 | 17 |
| Total, Permanent Positions | 753 | 9,086 | 9,839 | 751 | 9,205 | 9,956 | 728 | 9,229 | 9,957 |
| Unfilled Positions, end-of-year | -36 | -453 | -489 | -34 | -482 | -516 | -46 | -306 | -352 |
| Total Permanent Employment, end-of-year | 717 | 8,633 | 9,350 | 717 | 8,723 | 9,440 | 682 | 8,923 | 9,605 |
| Staff Years: Ceiling | 735 | 9,052 | 9,787 | 735 | 9,142 | 9,877 | 700 | 9,342 | 10,042 |

FOOD SAFETY AND INSPECTION SERVICE

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| Personnel Compensation: | | | |
| Headquarters | $30,947,708 | $31,704,453 | $32,548,760 |
| Field | 292,434,818 | 299,585,547 | 307,568,240 |
| 11 Total personnel compensation | 323,382,526 | 331,290,000 | 340,117,000 |
| 12 Personnel benefits | 80,972,665 | 86,109,000 | 88,334,000 |
| 13 Benefits for former personnel | 1,090,762 | 1,089,000 | 1,089,000 |
| Total personnel compensation and benefits | 405,445,953 | 418,488,000 | 429,540,000 |
| Other Objects: | | | |
| 21 Travel | 19,301,539 | 19,675,000 | 20,541,000 |
| 22 Transportation of things | 1,722,721 | 1,765,000 | 1,915,000 |
| 23 Communications, utilities and miscellaneous charges | 7,603,282 | 7,559,000 | 7,631,000 |
| 24 Printing and reproduction | 1,103,843 | 1,102,000 | 1,189,000 |
| 25 Other services | 13,678,129 | 20,822,000 | 22,837,000 |
| 26 Supplies and materials | 3,639,947 | 4,072,000 | 5,611,000 |
| 31 Equipment | 2,489,365 | 3,551,000 | 4,065,000 |
| 41 Grants, subsidies and contributions | 38,245,764 | 39,562,000 | 40,749,000 |
| 42 Insurance claims and indemnities | 141,244 | 141,000 | 144,000 |
| 43 Interest and dividends | 526 | 1,000 | 1,000 |
| Total other objects | 87,926,360 | 98,250,000 | 104,683,000 |
| Total direct obligations | 493,372,313 | 516,738,000 | 534,223,000 |
| Position Data: | | | |
| Average Salary, ES positions | $108,913 | $113,487 | $118,253 |
| Average Salary, GM/GS positions | $33,442 | $35,356 | $36,840 |
| Average Grade, GM/GS positions | 8.66 | 8.66 | 8.66 |

FOOD SAFETY AND INSPECTION SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Salaries and Expenses:

For necessary expenses to carry on services authorized by the Federal Meat Inspection Act, as amended, and the Poultry Products Inspection Act, as amended, [$516,738,000] $534,223,000, and in addition, [$1,000,000] [may be credited to this account] such sums as may be collected from fees [collected] for the cost of laboratory accreditation as authorized by section 1017 of Public Law 102-237: Provided, That this appropriation shall be available for field employment pursuant to section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed $75,000 shall be available for employment under 5 U.S.C. 3109: Provided further, That this appropriation shall be available pursuant to law (7 U.S.C. 2250) for the alteration and repair of buildings and improvements, but the cost of altering any one building during the fiscal year shall not exceed 10 per centum of the current replacement value of the building.

This change authorizes the Agency to obligate funds, as may be collected, from laboratory accreditation fees for the purpose of covering the cost of providing such service. The level of receipts will vary based upon participation of accredited laboratories and therefore cannot be set at a definite amount.

## SALARIES AND EXPENSES, CURRENT LAW

| | |
|---|---|
| Appropriations Act, 1994 | $516,738,000 |
| Budget Estimate, 1995 | 534,223,000 |
| Increase In Appropriation | +17,485,000 |

## SALARIES AND EXPENSES, PROPOSED LEGISLATION

| | |
|---|---|
| Budget Estimate, Current Law, 1995 | $534,223,000 |
| Change due to proposed legislation | -103,000,000 |
| Net Request, President's 1995 Budget Request | 431,223,000 |

## SUMMARY OF INCREASES AND DECREASES -- CURRENT LAW
(On basis of appropriation)

| Item of Change | 1994 Estimated | Pay Costs | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Slaughter Inspection | $308,825,000 | +$2,809,000 | +$7,024,000 | $318,658,000 |
| Processing Inspection | 128,378,000 | +1,169,000 | +1,861,000 | 131,408,000 |
| Import-Export Inspection | 12,419,000 | +112,000 | -11,000 | 12,520,000 |
| Laboratory Services | 27,554,000 | +219,000 | +3,115,000 | 30,888,000 |
| Grants-to-States | 39,562,000 | -- | +1,187,000 | 40,749,000 |
| Total Available | 516,738,000 | +4,309,000 | +13,176,000 | 534,223,000 |

## PROJECT STATEMENT -- CURRENT LAW
(On basis of appropriation)

| | 1993 Actual | | 1994 Estimated | | Increase or Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | | Amount | Staff Years |
| Meat and Poultry Inspection | | | | | | | |
| (a) Slaughter Inspection | $296,257,600 | 6,563 | $308,825,000 | 6,619 | +$9,833,000(1) | $318,658,000 | 6,758 |
| (b) Processing Inspection | 122,846,054 | 2,423 | 128,378,000 | 2,457 | +3,030,000(2) | 131,408,000 | 2,477 |
| (c) Import-Export Inspection | 12,130,141 | 210 | 12,419,000 | 210 | +101,000(3) | 12,520,000 | 207 |
| (d) Laboratory Services | 23,892,754 | 328 | 27,554,000 | 328 | +3,334,000(4) | 30,888,000 | 337 |
| (e) Grants-to-States | 38,245,764 | -- | 39,562,000 | -- | +1,187,000(5) | 40,749,000 | -- |
| Unobligated balance lapsing | 282,687 | -- | -- | -- | -- | -- | -- |
| Total available or estimate | 493,655,000 | 9,524 | 516,738,000 | 9,614 | +17,485,000 | 534,223,000 | 9,779 |
| Transfer to Other Accounts | 212,000 | -- | -- | -- | -- | -- | -- |
| Total, Appropriation | 493,867,000 | 9,524 | 516,738,000 | 9,614 | +17,485,000 | 534,223,000 | 9,779 |

## EXPLANATION OF PROGRAM

The Food Safety and Inspection Service administers a national meat and poultry inspection program pursuant to the Federal Meat Inspection Act and the Poultry Products Inspection Act. These acts require ante-mortem and post-mortem inspection of domestic livestock and poultry and the inspection during further processing of meat and poultry products. The major objective of the meat and poultry inspection program is to ensure that the Nation's commercial supply of meat and poultry products is safe, wholesome, and correctly labeled and packaged.

The Meat and Poultry Inspection program is responsible for uniformly applying inspection procedures and standards for sanitation, humane slaughter, facilities and equipment, and product labeling at all establishments under Federal inspection. It is also responsible for assessing the effectiveness of State inspection programs to assure that standards at least equal to those under the Inspection Acts are applied to meat and poultry establishments under State jurisdiction. Further, the program is responsible for reviewing foreign inspection systems and plants that export meat and poultry products to the United States, and inspecting imported products at ports of entry. The Laboratory Services program supports meat and poultry inspection through the scientific examination of meat and poultry products for disease, contamination, or other forms of adulteration.

In its enforcement of food safety laws, the Agency strives to modernize its inspection systems and improve the effectiveness of regulatory processes. FSIS continues to emphasize reform of its inspection systems. The Agency is incorporating into its inspection procedures the scientifically-based process control approach called the Hazard Analysis and Critical Control Point (HACCP) system for enhanced public health protection. HACCP is a specific inspectional approach to control biological and physical adulteration in foods. This approach includes the assessment of risks and the identification of points throughout the production and distribution system where control is necessary to eliminate potential risks. The Agency has also made strides in developing a comprehensive Pathogen Reduction Program aimed at reducing the occurrence of microbiological organisms found in meat and poultry. FSIS continues to work toward Administrative reductions by reviewing operations and targeting areas in which costs can be scaled back. FSIS supports the Administration's reorganization plan to streamline the Department.

## INSPECTION DATA

| | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| Federally inspected establishments: | | | |
| Slaughter plants | 351 | 345 | 339 |
| Processing plants | 4,551 | 4,527 | 4,503 |
| Combination slaughter and processing plants | 1,038 | 1,024 | 1,010 |
| Talmadge-Aiken Plants | 289 | 289 | 289 |
| Import establishments | 170 | 175 | 180 |
| Federally inspected production (millions of pounds): | | | |
| Meat slaughter | 40,665 | 41,000 | 41,000 |
| Poultry slaughter | 37,070 | 37,856 | 39,378 |
| Import/Export activity (millions of pounds): | | | |
| Meat and poultry imported | 2,597 | 2,600 | 2,605 |
| Meat and poultry exported | 2,000 | 2,200 | 2,500 |
| Imports refused entry | 17.7 | 17.9 | 18.2 |
| States and territories with cooperative agreements: | | | |
| Intrastate inspection | 27 | 27 | 27 |
| Talmadge-Aiken inspection | 21 | 21 | 21 |
| Number of slaughter and/or processing plants (excludes exempt plants) | 2,874 | 2,890 | 2,890 |
| Pounds inspected, slaughter (millions) | 749 | 750 | 750 |
| Compliance activities: | | | |
| Hazardous product detained (millions of pounds) | 13 | 16 | 18 |
| Compliance reviews | 48,293 | 52,000 | 55,000 |
| Detention actions | 796 | 850 | 900 |
| Laboratory Services (samples analyzed): | | | |
| Food chemistry | 36,169 | 32,000 | 32,000 |
| Food microbiology | 29,264 | 83,800 | 383,800 |
| Chemical residues | 156,023 | 157,000 | 157,000 |
| Antibiotic residues | 217,135 | 218,000 | 218,000 |
| Pathology samples | 8,534 | 8,600 | 8,600 |
| Serology samples | 6,159 | 6,200 | 6,200 |

GAO REPORTS

| NUMBER | DATE ISSUED | DATE COMPLETED | DESCRIPTION |
|---|---|---|---|
| T/RCED-94-71 | 11/04/93 | No Recommendation | Food Safety: A Unified, Risk-Based Inspection System Needed to Enhance Food Safety. |
| RCED-93-203 | 9/20/93 | No Recommendation | Federal Research: Aging Federal Laboratories Need Repairs and Upgrades. |
| PEMD-93-17 | 7/30/93 | No Recommendation | Pesticides: A Comparative Study of Industrialized Nations' Regulatory Systems. |
| RCED-93-142 | 7/26/93 | No Recommendation | Food Safety and Quality: Innovative Strategies May be Needed to Regulate New Food Technologies. |
| T/RCED-93-32 | 5/3/93 | No Recommendation | Revitalizing USDA: A Challenge for the 21st Century. |
| GGD-93-9BR | 4/26/93 | No Recommendation | TQM Implementation at Agriculture. |
| T/RCED-93-22 | 3/16/93 | No Recommendation | Food Safety: Building a Scientific Risk-Based Meat and Poultry Inspection System. |
| RCED-92-250 | 8/26/92 | 1/7/93 | Food Safety and Quality: USDA Improves Inspection Program for Canadian Meat, But Some Concerns Remain. |
| RCED-93-19FS | 11/27/92 | No Recommendation | USDA Revenues: A Descriptive Compendium. |
| RCED-92-152 | 6/26/92 | 5/27/93 | Food Safety and Quality: Uniform, Risk-Based Inspection System Needed to ensure safe food supply. |
| RCED-87-142 | 9/30/87 | --- | Imported Meat and Livestock: Chemical Residue Detection and the Issue of Labeling. |

| NUMBER | DATE ISSUED | DATE COMPLETED | DESCRIPTION |
|---|---|---|---|
| OIG REPORTS | | | |
| 24600-1-Ch | 11/18/93 | --- | Meat and Poultry Inspection - Quality Control Programs. |
| 24800-1-Kc | 8/12/93 | --- | Evaluation of Cornhusker Packing Company, Omaha, Nebraska. |
| 24600-1-At | 9/30/91 | --- | Monitoring of Drug Residue. |
| 24099-6-At | 6/28/91 | 2/8/93 | Accreditation of Commercial Laboratories. |
| 24099-5-At | 6/26/90 | --- | Labeling Policies and Approvals. |
| 24609-1-At | 11/17/88 | --- | Monitoring and Controlling Pesticide Residues in Domestic Meat and Poultry Products. |
| 24097-1-At | 2/5/87 | --- | FSIS Exporting Procedures. |

JUSTIFICATION OF INCREASES AND DECREASES

(1) An increase of $9,833,000 for Slaughter Inspection ($308,825,000 available in 1994):

(a) An increase of $2,809,000 for pay costs which reflects a 1.6 percent pay raise for fiscal year 1995.

(b) An increase of $1,114,000 which reflects a 3 percent increase in non-salary costs.

(c) An increase of $6,245,000 to provide staffing for critical in-plant inspector vacancies.

Need for Change. The Food Safety and Inspection Service is responsible for the inspection of the nation's supply of meat and poultry to assure that it is slaughtered in a manner that will protect the consumer from health threats posed by disease, chemicals, and pathogens. The accomplishment of this mission requires that the Agency provide complete and thorough inspection of every plant to ensure proper sanitation and handling and the inspection of every animal and bird slaughtered to ensure that it is free of disease or other undesirable conditions.

Nature of Change. The requested funds will enable the Agency to hire 170 additional slaughter inspectors to staff new lines and plants requiring inspection, and to fill a portion of the in-plant inspector positions necessary to bring staffing coverage up to the level necessary to perform all required inspection tasks in slaughter plants.

(d) An increase of $1,774,000 to expand efforts to reduce the level of pathogens in meat and poultry products.

Need for Change. The fiscal year 1994 investment proposal of the President provided $8 million to commence development of new methods and scientific procedures for the purpose of reducing the presence of pathogens in meat and poultry. Much of the initial research will be completed in 1994. In 1995, the Agency is requesting an additional $5,996,000 to begin testing the new procedures and developing the training courses to prepare the inspection staff to implement them. Of that request, $1,774,000 will be spent in slaughter activities.

Nature of Change. In fiscal year 1995, the Agency will expand the microbiological baseline studies to include additional products, design training courses in HACCP procedures and pathogen control methods, begin testing new slaughter methods, conduct quantitative risk assessments, expand its consumer education efforts, and conduct research to develop new rapid tests. The request will provide funding for an additional eight staff years.

(e) A decrease of $1,165,000 for the reduction in Federal employment costs.

Need for change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of change. To achieve the reduction target, FSIS will eliminate 39 staff years of its non-inspection positions by the end of FY 1995. In addition, FSIS will be working with other Marketing and Inspection Service agencies to evaluate whether additional offices could be

closed, consolidated, or collocated.

(f) A decrease of $944,000 for administrative efficiency.

Need for change. The Secretary's plan to streamline the administrative functions in the Marketing and Inspection Service agencies includes consolidating these functions into four Centers of Excellence beginning in 1994.

Nature of change. In order to achieve these administrative savings, FSIS will be responsible for increasing the efficiency of providing the personnel functions. APHIS will be responsible for increasing the efficiency of providing the administrative functions. AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(2) An increase of $3,030,000 for Processing Inspection ($128,378,000 available in 1994):

(a) An increase of $1,169,000 for pay costs which reflects a 1.6 percent pay raise for fiscal year 1995.

(b) An increase of $466,000 which reflects a 3 percent increase in non-salary costs.

(c) An increase of $1,436,000 to provide staffing for critical vacancies.

Need for Change. The Food Safety and Inspection Service is responsible for the inspection of the nation's supply of meat and poultry to assure that it is processed in a manner that will protect the consumer from health threats posed by disease, chemicals, and pathogens. The accomplishment of this mission requires that the Agency provide complete and thorough inspection of every plant to ensure proper sanitation and handling.

Nature of Change. The requested funds will enable the Agency to hire 30 processing inspectors to more fully staff in-plant inspector positions necessary to bring inspection coverage up to the level necessary to perform all required inspection tasks in processing plants.

(d) An increase of $775,000 to expand efforts to reduce the level of pathogens in meat and poultry products.

Need for Change. The fiscal year 1994 investment proposal of the President provided $8 million to commence development of new methods and scientific procedures for the purpose of reducing the presence of pathogens in meat and poultry. Much of the initial research will be completed in 1994. In 1995, the Agency is requesting an additional $5,996,00 to begin testing the new procedures and developing the training courses to prepare the inspection staff to implement them. Of that request $775,000 will be spent on processing activities.

Nature of Change. In fiscal year 1995, the Agency will expand the microbiological baseline studies to include additional products, design training courses in HACCP procedures and pathogen control methods, begin testing new processing methods, conduct quantitative risk assessments, expand its consumer education efforts, and conduct

research to develop new rapid tests. The request will provide funding for an additional four staff years.

(e) A decrease of $426,000 for the reduction in Federal employment costs.

Need for change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of change. To achieve the reduction target, FSIS will eliminate 14 staff years of its non-inspection positions by the end of FY 1995. In addition, FSIS will be working with other Marketing and Inspection Service agencies to evaluate whether additional offices could be closed, consolidated, or collocated.

(f) A decrease of $390,000 for administrative efficiency.

Need for change. The Secretary's plan to streamline the administrative functions in the Marketing and Inspection Service agencies includes consolidating these functions into four Centers of Excellence beginning in 1994.

Nature of change. In order to achieve these administrative savings, FSIS will be responsible for increasing the efficiency of providing the personnel functions. APHIS will be responsible for increasing the efficiency of providing the administrative functions. AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(3) An increase of $101,000 for Import/Export Inspection ($12,419,000 available in 1994):

(a) An increase of $112,000 for pay costs which reflects a 1.6 percent pay raise for fiscal year 1995.

(b) An increase of $45,000 which reflects a 3 percent increase in non-salary costs.

(c) An increase of $63,000 to expand efforts to reduce the level of pathogens in meat and poultry products.

Need for Change. The fiscal year 1994 investment proposal of the President provided $8 million to commence development of new methods and scientific procedures for the purpose of reducing the presence of pathogens in meat and poultry. Much of the initial research will be completed in 1994. In 1995, the Agency is requesting an additional $5,996,000 to begin testing the new procedures and developing the training courses to prepare the inspection staff to implement them. Of that request, $63,000 will be spent on Import/Export Inspection activities.

Nature of Change. In fiscal year 1995, the Agency will expand the microbiological baseline studies to include additional products, design training courses in HACCP procedures and pathogen control methods, begin testing new inspection methods, conduct quantitative risk assessments, expand its consumer education efforts, and conduct research to develop new rapid tests.

(d) A decrease of $84,000 for the reduction in Federal employment costs.

Need for change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of change. To achieve the reduction target, FSIS will eliminate three staff years of its non-inspection positions by the end of FY 1995. In addition, FSIS will be working with other Marketing and Inspection Service agencies to evaluate whether additional offices could be closed, consolidated, or collocated.

(e) A decrease of $35,000 for administrative efficiency.

Need for change. The Secretary's plan to streamline the administrative functions in the Marketing and Inspection Service agencies includes consolidating these functions into four Centers of Excellence beginning in 1994.

Nature of change. In order to achieve these administrative savings, FSIS will be responsible for increasing the efficiency of providing the personnel functions. APHIS will be responsible for increasing the efficiency of providing the administrative functions. AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(4) An increase of $3,334,000 for laboratory testing of meat and poultry products ($27,554,000 available in 1994):

(a) An increase of $219,000 for pay costs which reflects a 1.6 percent pay raise for fiscal year 1995.

(b) An increase of $211,000 which reflects a 3 percent increase in non-salary costs.

(c) An increase of $3,144,000 to expand efforts to reduce the level of pathogens in meat and poultry products.

Need for Change. The fiscal year 1994 investment proposal of the President provided $8 million to commence development of new methods and scientific procedures for the purpose of reducing the presence of pathogens in meat and poultry. Much of the initial research will be completed in 1994. In 1995, the Agency is requesting an additional $5,996,000 to begin testing the new procedures and developing the training courses to prepare the inspection staff to implement them. Of that request, $3,144,000 will be spent on laboratory activities.

Nature of Change. In fiscal year 1995, the Agency will expand the microbiological baseline studies to include additional products, design training courses in HACCP procedures and pathogen control methods, begin testing new inspection methods, conduct quantitative risk assessments, expand its consumer education efforts, and conduct research to develop new rapid tests. The request will provide funding for an additional 14 staff years.

(d) A decrease of $145,000 for the reduction in Federal employment costs.

Need for change. The Secretary has developed a plan to streamline the

department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of change. To achieve the reduction target, FSIS will eliminate five staff years of its non-inspection positions by the end of FY 1995. In addition, FSIS will be working with other Marketing and Inspection Service agencies to evaluate whether additional offices could be closed, consolidated, or collocated.

(e) A decrease of $95,000 for administrative efficiency.

Need for change. The Secretary's plan to streamline the administrative functions in the Marketing and Inspection Service agencies includes consolidating these functions into four Centers of Excellence beginning in 1994.

Nature of change. In order to achieve these administrative savings, FSIS will be responsible for increasing the efficiency of providing the personnel functions. APHIS will be responsible for increasing the efficiency of providing the administrative functions. AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(5) An increase of $1,187,000 for Grants-to-States ($39,562,000 available in 1994):

(a) An increase of $1,187,000 which reflects a 3 percent increase in non-salary costs.

Food Safety and Inspection Service
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 and Estimated 1994 and 1995

| | FY 1993 | | FY 1994 | | FY 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Alabama | $17,714,493 | 426 | $18,553,000 | 430 | $19,181,000 | 438 |
| Alaska | 356,000 | 0 | 373,000 | 0 | 385,000 | 0 |
| Arizona | 1,477,186 | 23 | 1,547,000 | 23 | 1,599,000 | 24 |
| Arkansas | 24,386,619 | 610 | 25,542,000 | 616 | 26,406,000 | 627 |
| California | 29,860,643 | 608 | 31,275,000 | 614 | 32,333,000 | 625 |
| Colorado | 6,979,347 | 164 | 7,310,000 | 166 | 7,557,000 | 169 |
| Connecticut | 1,477,599 | 30 | 1,548,000 | 30 | 1,600,000 | 31 |
| Delaware | 4,286,748 | 103 | 4,490,000 | 104 | 4,642,000 | 106 |
| District of Columbia | 67,971,639 | 691 | 71,191,000 | 697 | 73,599,000 | 698 |
| Florida | 7,762,717 | 131 | 8,130,000 | 132 | 8,405,000 | 135 |
| Georgia | 30,353,886 | 606 | 31,791,000 | 612 | 32,867,000 | 623 |
| Hawaii | 1,305,701 | 2 | 1,368,000 | 2 | 1,414,000 | 2 |
| Idaho | 2,351,721 | 53 | 2,463,000 | 54 | 2,546,000 | 54 |
| Illinois | 13,415,328 | 223 | 14,051,000 | 225 | 14,526,000 | 229 |
| Indiana | 6,692,416 | 116 | 7,009,000 | 117 | 7,247,000 | 119 |
| Iowa | 18,185,961 | 408 | 19,047,000 | 412 | 19,692,000 | 419 |
| Kansas | 11,551,340 | 251 | 12,098,000 | 254 | 12,508,000 | 258 |
| Kentucky | 5,915,985 | 134 | 6,196,000 | 135 | 6,406,000 | 138 |
| Louisiana | 5,454,376 | 96 | 5,713,000 | 97 | 5,906,000 | 99 |
| Maine | 1,005,864 | 21 | 1,053,000 | 21 | 1,089,000 | 22 |
| Maryland | 9,310,748 | 200 | 9,752,000 | 202 | 10,082,000 | 206 |
| Massachusetts | 2,703,758 | 60 | 2,832,000 | 61 | 2,928,000 | 62 |
| Michigan | 7,875,584 | 177 | 8,249,000 | 179 | 8,528,000 | 182 |
| Minnesota | 13,112,227 | 306 | 13,733,000 | 309 | 14,198,000 | 315 |
| Mississippi | 10,773,675 | 246 | 11,284,000 | 248 | 11,666,000 | 253 |
| Missouri | 18,357,993 | 352 | 19,227,000 | 356 | 19,878,000 | 362 |
| Montana | 2,134,580 | 36 | 2,236,000 | 36 | 2,311,000 | 37 |
| Nebraska | 13,099,743 | 320 | 13,720,000 | 323 | 14,184,000 | 329 |
| Nevada | 439,899 | 9 | 461,000 | 9 | 476,000 | 9 |
| New Hampshire | 480,503 | 10 | 503,000 | 10 | 520,000 | 10 |
| New Jersey | 5,630,627 | 121 | 5,897,000 | 122 | 6,097,000 | 124 |
| New Mexico | 1,472,154 | 24 | 1,542,000 | 24 | 1,594,000 | 25 |
| New York | 11,673,254 | 244 | 12,226,000 | 246 | 12,640,000 | 251 |
| North Carolina | 17,562,843 | 375 | 18,395,000 | 379 | 19,017,000 | 385 |
| North Dakota | 1,224,161 | 26 | 1,282,000 | 26 | 1,326,000 | 27 |
| Ohio | 10,798,875 | 141 | 11,310,000 | 142 | 11,693,000 | 145 |
| Oklahoma | 4,630,250 | 73 | 4,850,000 | 74 | 5,014,000 | 75 |
| Oregon | 3,581,536 | 77 | 3,751,000 | 78 | 3,878,000 | 79 |
| Pennsylvania | 19,823,697 | 448 | 20,762,000 | 452 | 21,465,000 | 461 |
| Rhode Island | 541,492 | 12 | 567,000 | 12 | 586,000 | 12 |
| South Carolina | 5,937,463 | 120 | 6,219,000 | 121 | 6,429,000 | 123 |
| South Dakota | 3,115,369 | 64 | 3,263,000 | 65 | 3,373,000 | 66 |
| Tennessee | 6,345,762 | 143 | 6,646,000 | 144 | 6,871,000 | 147 |
| Texas | 30,858,140 | 590 | 32,320,000 | 596 | 33,413,000 | 606 |
| Utah | 2,542,763 | 45 | 2,663,000 | 45 | 2,753,000 | 46 |
| Vermont | 620,500 | 9 | 650,000 | 9 | 672,000 | 9 |
| Virginia | 10,683,981 | 237 | 11,190,000 | 239 | 11,569,000 | 244 |
| Washington | 5,313,902 | 119 | 5,566,000 | 120 | 5,754,000 | 122 |
| West Virginia | 2,076,174 | 39 | 2,174,000 | 39 | 2,248,000 | 40 |
| Wisconsin | 8,732,514 | 139 | 9,146,000 | 140 | 9,456,000 | 143 |
| Wyoming | 227,000 | 0 | 238,000 | 0 | 246,000 | 0 |
| Guam | 7,922 | 0 | 8,000 | 0 | 9,000 | 0 |
| Puerto Rico | 2,887,183 | 64 | 3,024,000 | 65 | 3,126,000 | 66 |
| Samoa | 54,871 | 1 | 57,000 | 1 | 59,000 | 1 |
| Virgin Islands | 55,601 | 1 | 58,000 | 1 | 60,000 | 1 |
| Foreign Countries | 180,000 | 0 | 189,000 | 0 | 196,000 | 0 |
| Subtotal, Available or Estimate | 493,372,313 | 9,524 | 516,738,000 | 9,614 | 534,223,000 | 9,779 |
| Unobligated balance | 282,687 | -- | -- | -- | -- | -- |
| Total, Available or Estimate | 493,655,000 | 9,524 | 516,738,000 | 9,614 | 534,223,000 | 9,779 |

Food Safety and Inspection Service
Summary of Proposed Legislation

SUMMARY OF INCREASES AND DECREASES -- PROPOSED LEGISLATION

| Item of Change | 1995 Current Law | 1995 Program Changes | 1995 President's Request |
|---|---|---|---|
| Slaughter Inspection ..... | $318,658,000 | -$67,072,000 | $251,586,000 |
| Processing Inspection .... | 131,408,000 | -27,769,000 | 103,639,000 |
| Import-Export Inspection . | 12,520,000 | -2,762,000 | 9,758,000 |
| Laboratory Services ..... | 30,888,000 | -5,397,000 | 25,491,000 |
| Grants-to-States ..... | 40,749,000 | -- | 40,749,000 |
| Total Available ..... | 534,223,000 | -103,000,000 | 431,223,000 |

Explanation of Proposed Legislation

Legislation will be submitted providing authority to the USDA to collect fees for the cost of all inspection services performed at times other than during an approved primary shift, as established by regulation. These sums shall be credited to the Food Safety and Inspection Service account, to be available for carrying out the purposes of the inspection programs without further appropriations.

The meat and poultry inspection services for all regularly scheduled and approved shifts are paid with federal funds. Establishments that operate beyond approved regularly scheduled shifts pay overtime costs for inspection. This proposal would put large and small establishments on more equal footing by requiring that all establishments that operate outside of a single approved primary shift pay for the costs of the additional inspection. These fees will have a minimal impact on prices.

FOOD SAFETY AND INSPECTION SERVICE

STATUS OF PROGRAM

MEAT AND POULTRY INSPECTION

Current Activities: Program responsibilities include:

1. Ensuring that meat and poultry products are safe, wholesome, and properly labeled; and preventing the movement or sale in commerce of any meat and poultry products which are adulterated, unwholesome, or mislabeled.

2. Inspecting, before and after slaughter, those birds and animals intended for use as food for humans and maintaining surveillance of the further processing of meat and poultry products to assure food safety.

3. Providing pathological, microbiological, chemical, and other scientific examination of meat and poultry products for disease, infection, contamination, or other types of adulteration.

4. Conducting emergency operations in connection with the voluntary recall of meat and poultry products containing chemical, microbial, or other adulterants.

5. Reviewing and assessing the effectiveness of State inspection programs to ensure that standards at least equal to those under the Federal Acts are applied to meat and poultry plants under State jurisdiction.

6. Reviewing and assessing foreign inspection systems and facilities that export meat and poultry to the United States to ensure that standards are maintained equal to those in the United States. Reinspecting imported meat and poultry products at port of entry to ensure that product meets Federal standards.

7. Facilitating the export of United States meat and poultry products by obtaining the inspection requirements of foreign governments and negotiating the equivalence of United States inspection procedures.

8. Monitoring allied industries to prevent uninspected, unwholesome, or mislabeled meat and poultry from illegally entering channels of commerce.

9. Conducting epidemiological investigations based on reports of foodborne health hazards and disease outbreaks.

10. Providing public information to ensure the safe handling of meat and poultry products by consumers.

Selected Examples of Recent Progress:

1. Inspection Activities:

FSIS has over 7,500 full-time inspectors operating in approximately 6,200 Federally inspected plants throughout the United States. It is their responsibility to monitor the slaughter and processing of all meat and poultry products produced for interstate commerce in the United States. The inspectors help ensure that the nation's supply of meat and poultry is safe, wholesome, and correctly labeled and packaged.

2. Emergency Activities:

a. Product Recalls. FSIS conducts a program to handle emergency actions concerning residue, microbiological, and other contamination problems. This program oversaw actions on 34 recalls during fiscal year 1993. The recalls involved five different pork products, 12 beef products, five poultry products, and 12 multi-species products that led to the reprocessing or destruction of 787,510 pounds of violative product. The primary causes of product recalls were microbiological and chemical hazards, processing or container defects, and extraneous materials. In these cases, press releases were issued to inform the public of the recall situation and advise them of FSIS's actions.

b. Kansas City Fire. A fire at an underground storage facility in Kansas City, Kansas, which started on December 28, 1991, contaminated approximately 50 million pounds of commercially prepared meat and poultry products and 45 million pounds of USDA owned meat and poultry products due to the toxic smoke residues. These items were immediately placed under embargo by The Kansas Department of Health and Environment (KDHE). The Food and Drug Administration advised the Kansas State authorities that the product could be released and used as human food after chemical tests showed the product to be free of residues. FSIS coordinated the action organoleptically examining the meat and poultry products for evidence of smoke contamination or other contaminants. FSIS worked with the Agricultural Stabilization and Conservation Service, the Agricultural Marketing Service and the Food and Nutrition Service, to assure that the USDA owned meat and poultry products were reinspected and properly distributed or disposed of.

As of the beginning of fiscal year 1994, approximately 3 million pounds of commercially prepared meat and poultry remain in the storage facility awaiting final disposition. The balance of 47 million pounds of commercial and USDA owned meat and poultry products was either voluntarily destroyed or was condemned and destroyed after it failed the FSIS reinspection. Action is continuing to reinspect the remaining product. The project is expected to be completed in fiscal year 1994.

3. Federal-State Relations:

a. Review of State Programs. During fiscal year 1993, reviews of six States (South Carolina, Virginia, Wyoming, Georgia, Vermont, and Alabama) were completed, including a special review of the inspection program in the State of Hawaii. The State programs reviewed were all found to be acceptable. In addition to the reviews conducted by FSIS staff, the USDA Office of Inspector General conducted on-site audits of four State programs (Kansas, Texas, Ohio and Florida). The findings of these audits are currently under administrative review and will be released in the Fall of 1994.

b. Establishment of a Coordination Committee. A committee to promote cooperation between FSIS and the State inspection programs was formed in fiscal year 1993. The committee is to meet biennially and is comprised of

two FSIS Deputy Regional Directors, the FSIS Director of Federal-State Relations and two representatives of the National Association of State Meat and Food Inspection Directors.

4. Inspection Improvement and Modernization:

a. Pathogen Reduction Program. The tragic outbreak of foodborne illness from E. coli in January 1993 heightened the urgency for improved controls and new ways to enhance food safety. While microbial control has been an implicit goal of the FSIS inspection program, FSIS designed a new, all-encompassing Pathogen Reduction Program to strengthen public health protection against microbial pathogens. The program is organized around eight principles aimed at reducing the likelihood that harmful microbes will enter the food supply at key points during production, distribution, and preparation. The plan involves coordination between FSIS, other USDA and government agencies, as well as consumer, industry, and professional groups. In September 1993, FSIS sponsored, along with the Food and Drug Administration and the Extension Service, a video teleconference for public health officials.

b. Microbiological Baseline Data Collection. In 1992, USDA designed its first nationwide Microbiological Baseline Data Collection Program. The purpose of these programs is to identify and enumerate the presence of pathogenic bacteria and indicator organisms on cuts of meat produced under Federal inspection. These studies are now being incorporated into the Pathogen Reduction Program. In fiscal year 1993, FSIS expanded its nationwide Beef Microbiological Baseline Data Collection Program from the original population of steers and heifers to include cows and bulls. These studies began in 1993 and include a study of bacterial shedding (periodic excretion of bacteria pathogens in animal feces often caused by stress) in normal versus disabled cows, a ground beef survey, and evaluation of microbiological pre-operational sanitation methods.

c. Listeria monocytogenes. FSIS has conducted monitoring programs for the presence of Listeria monocytogenes in cooked, ready-to-eat meat and poultry products since 1987. Since proper cooking should destroy the presence of these pathogenic bacteria, the finding of these organisms in fully cooked, ready-to-eat products leads to regulatory action by FSIS, in the form of a product recall, with subsequent intensified sampling of product produced at the implicated plant. In fiscal year 1993, this monitoring program was recognized by the Centers for Disease Control in helping to decrease the annual cases of listeriosis in the U.S. from approximately 2,000 to 1,000 cases.

d. Enterohemorrhagic Escherichia: E. coli 0157:H7. In January 1993, approximately 500 illnesses from Escherichia coli 0157:H7 were reported in Washington, Idaho, California, and Nevada. Most of the cases were linked to undercooked hamburgers at a fast food restaurant chain in Washington. The tragedy intensified regulatory responses in FSIS, and the Secretary of Agriculture and the President called upon FSIS to intensify enforcement efforts and accelerate plans for inspection reform.

In mid January 1993, USDA worked closely with Centers for Disease Control, Food and Drug Administration, and State officials to ensure that potentially contaminated meat was under Federal oversight. FSIS detained 109,400 pounds of suspect product, which had been distributed to restaurants in four States. Meat and equipment from 20 suppliers were tested for E. coli. Two samples were positive, but were not of the epidemic strain. Investigations were unable to trace the contamination to any one specific supplier, farm, herd, or animal.

e. Performance Based Inspection System. The Performance Based Inspection System (PBIS) is a computer based system for organizing inspection

requirements, scheduling inspection activities, and recording inspection findings. PBIS provides FSIS with an easily accessible data bank on plant performance by scheduling and tracking inspection findings in processing plants. Its records document plant performance, forming a sound basis for uniform enforcement decisions. In fiscal year 1993, pilot programs were initiated in selected plants to collect information on inspector workload and performance. This data will be used to determine the feasibility of using PBIS in setting inspector staffing and grade levels in Federally inspected plants. In the past, FSIS has determined staffing and grade levels on the basis of facilities and equipment. By employing the PBIS system the Agency is able to determine the workload of the plants much more accurately and gauge the number of staff years that a particular facility may require more accurately.

f. Hazard Analysis and Critical Control Point System (HACCP). HACCP is a system of controls which, when applied to food processing operations, can help prevent hazardous, unwholesome, or adulterated food from reaching consumers. In late May 1993, Secretary Espy directed FSIS to provide him with a plan for implementing mandatory HACCP in the nation's meat and poultry establishments. The Secretary recognized that such a system was a necessary building block of the inspection system of the future.

FSIS had for the previous two years been studying HACCP. These efforts had included holding numerous public hearings, several intensive workshops, plus international symposia and conferences designed to publicly explore the HACCP concept and its applicability in regulated meat and poultry establishments. Expert groups such as the National Academy of Sciences, the National Advisory Committee on Microbiological Criteria for Foods and others had been asked for their recommendations and assistance in this matter.

In early 1994, FSIS will sponsor a HACCP Roundtable designed to further and more completely explore HACCP-related issues. USDA agreed to this effort in response to criticism by consumer groups that they had been largely left out of the process during the past. A proposed rule can be expected approximately six months after the Roundtable.

g. Progressive Enforcement Action. The Progressive Enforcement Action (PEA) was developed to provide instructions to FSIS inspectors for application of increasingly severe enforcement actions when establishments have demonstrated an unwillingness or inability to maintain plant facilities and operations in compliance with FSIS regulatory requirements.

The program details the stages of action inspectors will employ to bring plants back into compliance with the inspection acts. At any point in the process a plant manager has the option of terminating sanctions by correcting the deficiencies that caused enforcement actions to be taken against the plant. Stage I begins when inspection personnel have documented repeated failures in a plant performance and plant management is unable or unwilling to act to effectively prevent recurrences. At this stage, the Inspector-In-Charge meets with plant officials to inform them of the specific pattern of problems and begins the process that can lead to either corrective actions or progressively stronger regulatory action.

In Stage II, the plant is given a plan of action for corrective actions and is given approximately 180 days to achieve them. After correction of the problems, the plant is gradually returned to its normal inspection pattern. If the plant does not satisfactorily accomplish the required corrections, the program proceeds to the third stage.

The objective of Stage III is to provide noncompliant plants with a final opportunity for correcting deficiencies prior to initiating formal legal action to withdraw inspection. Failure to comply with the provisions of

the law may result in refusal, suspension, or withdrawal of inspection services and/or the imposition of criminal or civil sanctions.

In May of 1993, a centralized, automated, reporting system was developed in order to maintain records of plants that have been placed under PEA. During fiscal year 1993 only 11 plants entered Stage II and no plants required the application of Stage III procedures.

h. Clean Meat Production. During the process of slaughtering animals and birds, contamination of edible meat or poultry with contents from the digestive tract of animals and birds or the mammary gland of the animal may occasionally occur. FSIS, by regulation, requires the removal of contaminants from an otherwise wholesome product. In re-emphasizing this regulation, FSIS has developed proposed programs to support a consistent and comprehensive application of the zero tolerance standard for fecal, ingesta, and milk contamination. These programs prescribe the method of removal of contamination and establish new requirements for industry production with additional safeguards to control and prevent the occurrence of fecal, ingesta, and milk contamination. Secretary Espy has requested that, prior to implementation of these programs, FSIS design a microbiological sampling program to serve as an adjunct to the inspection program. A pilot program involving sampling at a variety of critical control points in beef slaughter plants was initiated in November 1993 and will continue until February 1994. FSIS is also taking steps to initiate immediate actions on the clean meat program in cattle plants by holding discussions with inspectors and supervisors on defect identification guidelines for fecal, ingesta, and milk contamination to assure uniform application of regulations and re-emphasizing inspection responsibilities in the areas of sanitary dressing procedures and carcass inspection.

i. Pre-Evisceration Sprays. Properly handled water sprays containing certain compounds have been demonstrated to safely control microbial contamination on carcasses. FSIS ruled in November 1992 that slaughter plants could request approval to use these sprays. Water sprays are allowed that contain such anti-microbial agents as organic acids that are "generally recognized as safe" by the FDA and other agents specifically approved for this purpose. Before deciding to allow use of pre-evisceration sprays on livestock carcasses, FSIS evaluated many studies on carcass sprays and the antimicrobial effects of organic acids on meat tissues and consulted with its advisory committee members and other experts in public health and the food and animal sciences.

Pre-evisceration sprays are not to be used as substitutes for sanitary dressing procedures. Therefore, their use is allowed only in plants with FSIS-approved partial quality control programs. When sprays are used, inspectors ensure that the plant is controlling spray temperatures, concentrations, and pressures, as well as taking steps to see that the sprays do not cause carcass weight gain.

j. Workplace Safety. In fiscal year 1993, FSIS took significant steps to enhance the well being of its employees. Workplace safety for FSIS in-plant inspection personnel was given special emphasis to assist in preventing tragedies such as the September 1991 fire in a poultry plant in Hamlet, North Carolina, where 25 plant workers died. The Agency has increased its efforts relating to fire safety, including: annual reviews of plant emergency plans; development of guidance on securing exit doors in meat and poultry plants; increasing safety training for employees; and reemphasizing occupational health and safety committees. The Agency also plans to propose that all plants furnish smoke detectors in those areas occupied by inspection personnel.

k. Pre-Operational Sanitation. In fiscal year 1993, FSIS began the development of a pre-operational sanitation program for red meat slaughter

plants. The pre-operational sanitation effort is divided into two components: 1) the training of all red meat slaughter inspection staff in pre-operational inspection (Note: Poultry inspectors are already conducting pre-operational sanitation inspection); and 2) the training of all slaughter inspectors in microbiological testing procedures.

The training of the red meat slaughter inspection staff in pre-operational sanitation is expected to be completed in fiscal year 1994. Pre-testing of four microbiological test kits began in December 1993 with pilot testing to begin in January 1994 at 10 plants. Once a suitable test kit has been selected, training of the slaughter inspectors in microbiological testing procedures will begin.

l. Product Analysis Scheduling System (PASS). The system design was completed in October 1993, and is now under development and testing. PASS is a scientific, automated means to provide more management control of in-plant food product sampling. The system will use plant and product class characteristics obtained from existing Agency databases to create sampling frames, allocate and select samples based upon scientific statistical designs, and electronically distribute sampling requests to the Inspection Management System, in area offices. Sampling requests will be scheduled and printed along with inspector assignment schedules. Inspectors will collect samples using sample design instructions and forward the samples to the laboratory specified. Information on sampling results will be utilized in program decision-making.

m. Transgenic Animal Slaughter. Transgenic animals are animals whose genetic composition has been changed by introducing selective genes (e.g. recombinant DNA). The USDA Office of Agriculture Biotechnology selected members for the Agriculture Biotechnology Research Advisory Committee's (ABRAC) Transgenic Animal Working Group. On April 8, 1993, FSIS presented its policy on the slaughter of transgenic food animals to this committee in a public meeting. On June 29-30, 1993, a public meeting of the full ABRAC body was held, to discuss the findings of the Transgenic Animal Working Group and finalize the ABRAC recommendation to FSIS. ABRAC's guidance of and concurrence with any FSIS policy on transgenic animal slaughter was deemed essential to accommodate public concern about the safety and Federal oversight of the food applications of animals resulting from biotechnology research.

n. Rapid Tests and Chemical Residues. In fiscal year 1993, FSIS conducted 116,653 Swab Test on Premises (STOP) tests to detect the presense of antibiotics in meat and poultry, 82,261 Calf Antibiotic and Sulfa Tests (CAST) were conducted to detect antibiotics and sulfa drugs in bob veal calves, and 112,440 Sulfa on Site (SOS) tests were conducted to detect violative levels of drug sulfamethazine in hogs. The Fast Antimicrobial Screen Test (FAST) was developed in 1991 to replace CAST and STOP. It detects both antibiotics and sulfonamide drug residues in animal tissues. The preliminary report produced from the analysis of data gathered from the field tests which concluded at the end of January 1992, indicates that the FAST test is as accurate as the STOP and CAST tests. FAST is being produced commercially, and is scheduled for implementation in five calf plants in January 1994. Training manuals are being developed, and field supplies will be provided for performing the FAST test by inspectors in the field.

o. Bacterial Control in Poultry Processing. Results of the Puerto Rico Bacterial Control Project describing the poultry processing linespeed study show that ready-to-cook poultry microbiological loads are independent of processing linespeeds. The studies also confirm that broilers become cleaner as they progress through processing, including immersion chilling. FSIS completed a Salmonella inhibitor (feed additive) study in March of 1993. This biological additive is added to poultry feed

during manufacture, and is relatively inexpensive. It has the ability to kill Salmonella present in feed ingredients and prevent contamination from recurring in feed during transport, storage and feeding. This initial trial indicated its effectiveness in controlling Salmonella contamination in poultry feed, and will reduce the levels of organisms on processed broilers. Additional trials will be conducted to see if there is a cumulative effect which reduces or eliminates Salmonella in the broiler environment when the treated feed is used repeatedly in grow-out houses (houses where poultry are raised from chicks to slaughter age).

5. Regulatory and Enforcement Actions:

a. Regulatory Actions. FSIS published a final rule, "Nutrition Labeling of Meat and Poultry Products," that amended the meat and poultry inspection regulations to permit voluntary nutrition labeling on single-ingredient, raw products and to establish mandatory nutrition labeling for most other meat and poultry products.

FSIS also published final rules that permit: 1) a more efficacious use level of sodium citrate in blood to prevent coagulation during collection; 2) allow the use of a 30 percent solution of citric acid as a means of preserving the fresh color of cured pork products packaged for retail sale; 3) permit the use of potassium lactate and sodium lactate as flavor enhancers and flavoring agents in various meat and poultry products; 4) allow use of tocopherols and citric acid in various meat products as alternative antioxidants and synergists, respectively; and 5) allow the use of smoke flavorings and artificial smoke flavorings in meat and poultry products without prior FSIS approval.

b. Detentions. A total of 796 detentions of adulterated meat and poultry products, with a corresponding weight of 13,081,409 pounds, occurred during fiscal year 1993. Some of the more significant product detentions include the following:

- 1,857,182 pounds of various meat products were found to be adulterated due to an ammonia gas leak. The products were returned to two Federal establishments for reinspection. 43,806 pounds were condemned and 1,813,376 pounds were released.

- 1,650,000 pounds of meat products were detained due to water damage caused by river flooding at a warehouse in Iowa. Final product disposition is still pending.

- 1,107,144 pounds of hams which bore incomplete labeling information. The product was relabeled at the warehouse under the control of the Inspector-In-Charge.

- 610,985 pounds of various meat and poultry products which were found to be rodent adulterated.

- 450,225 pounds of meat which was adulterated due to an ammonia gas leak.

- 586,105 pounds of meat products were found to be rodent adulterated.

c. Enforcement Actions. In October 1992, a Maryland firm was fined $2,000 and placed on one year's probation for selling consumers goat meat adulterated with hair, dirt, and ingesta. Earlier, the owner of the firm pled guilty to two misdemeanor counts on behalf of the company. The action came as a result of a joint investigation by the Office of the Inspector General and FSIS compliance officers.

In October 1992, a county district court in Pennsylvania fined a Federally inspected meat plant $1,250 for selling mislabeled venison. The firm pled no contest to two counts. Laboratory samples collected by compliance officers confirmed venison in beef and/or pork products. The case against the firm resulted from a joint cooperative effort by FSIS inspectors, compliance officers, and the Pennsylvania Game Commission.

In November 1992, a Federal Court fined an Iowa corporation $30,000 for shipping 4,100 pounds of adulterated meat products that were contaminated by rodents. In August, 1992, the chairman and executive officer of the firm pled guilty to one felony charge on behalf of the company.

In November 1992, the owner of a food market in Maryland pled guilty to one count of selling adulterated/uninspected goat meat. A district court sentenced the proprietor of the establishment to serve three years probation and ordered him to pay a fine of $500. The legal action stemmed from a joint FSIS investigation.

In January 1993, the USDA agreed to halt plans to withdraw inspection services from a Federally inspected meat processing firm in Pennsylvania and two affiliated firms on condition that the firms comply with the provisions of the consent decision and order. The order included a two week suspension of inspection services from the Pennsylvania location and requires all three firms to implement in-plant production control programs to prevent manufacture, storage, or sale of adulterated or misbranded products. The order requires operational and financial divestiture of the firm's secretary/operator. It also includes provisions for summary withdrawal of inspection services if further violations are committed. The action to withdraw services was taken after the firm and its secretary/operator were convicted of two felony counts each for mail fraud and selling and distributing product labeled as beef that contained chicken and pork.

In January 1993, the USDA agreed to halt plans to withdraw inspection services from a Federally inspected slaughtering and meat processing plant in Puerto Rico on condition that the firm complies with the provisions of the consent decision and order which includes the operational and financial divestiture of the firm's president for five years. The order also includes four weeks suspension of inspection services and a program to assure that meat products containing more than one species/ingredient are processed in compliance with USDA requirements. The firm's owner was convicted on three felony counts for preparing, selling, and transporting adulterated and misbranded ground beef that contained pork.

In March 1993, a United States District Court in New Jersey found a poultry slaughterer in contempt of a previous Default Judgment which permanently enjoined the firm from selling or transporting uninspected meat or poultry. The judge fined the firm $35,000 for violating the injunction on at least seven occasions since July 1990.

In June 1993, a U.S. District Court for the Western District of Kentucky convicted a retail store and its owner on two misdemeanor and eight felony counts for adulterating pork sausage and ground beef with sodium benzoate. The judge placed the owner on probation for one year and fined both the firm and him $5,000 each.

In June 1993, a U.S. District Court in Massachusetts placed a co-owner of a defunct Federal establishment on probation for 24 months for selling ungraded beef mislabeled as "Choice", billing customers for more weight than was supplied, and altering evidence. The

establishment and two other company officials were also fined $5,000 for similar violations. The other co-owner was placed on 24 months of home detention in lieu of prison and the salesman was placed on probation for 5 years and ordered to perform 500 hours of community service. The Justice Department's case against the firm and individuals resulted from a joint-cooperative effort by USDA and Food and Drug compliance officers.

In June 1993, a New York retail firm and its owner entered into a "Supplemental Consent and Judgement Decree". The terms of the decree state, among other things, that if any violation of the Federal Meat Inspection Act or Poultry Products Inspection Act are found the defendant(s) shall immediately be rendered liable in the amount of $23,700, plus interest. Both the original and supplemental "decrees" were a result of repeated violations of the Poultry Products Inspection Act by the business.

In July 1993, a Federal Court in Iowa sentenced the owner of two inspected meat plants and a company employee for conspiracy, fraud, and the sale of adulterated and misbranded meats. The defendants were found guilty of selling tainted meat and substituting two and one-half million pounds of ungraded meat for meat labeled "Choice". Each firm was fined $150,000. The owner received a twenty-one month prison term and three years probation. The employee was sentenced to three years probation and sixty days home detention. Earlier in the year another employee was sentenced to two years probation for selling adulterated meat.

In August 1993, the Office of Inspector General reported that a former operator of a Federally inspected meat plant in Michigan was sentenced in a Federal Court on two misdemeanor counts for knowingly, intentionally, and unlawfully misbranding articles capable for use as human food. The violations took place between April and November 1988, when cattle diseased with advanced epithelioma (cancer eye) were regularly slaughtered without proper inspection and the meat was sold for human consumption. The defendant was ordered to pay a $2,000 fine.

In August 1993, the State of California Attorney General and the Alameda District Attorney announced that a California super market chain agreed to a $6.35 million stipulation judgment. The terms of the stipulation judgment include, among other things, that the firm will pay civil penalties in the amount of $3,000,000 to be divided between the State of California and the County of Alameda. The firm will also pay $2,000,000 as restitution, in part, to the California Consumer Protection Prosecution Trust Fund. Further, the firm will donate to food banks, $1,000,000 worth of food. Additionally, the firm will pay $350,000 to the Attorney General's Office, the Alameda District Attorney's Office, and other regulatory agencies for costs of the investigation. During the investigation, FSIS compliance officers in cooperation with the State of California Attorney General conducted reviews at the firm's retail stores. Evidence gathered during these reviews showed that the retail stores were engaged in an ongoing practice of introducing undeclared species, such as pork and chicken, to ground beef products being produced and sold to consumers at the retail level. The FSIS laboratory in Alameda confirmed product adulteration by unauthorized ingredients.

In September 1993, in the U.S. District Court for the Western District of Wisconsin, a Federal judge ordered a Federally inspected meat plant to pay a $100,000 fine for knowingly making false statements in a shipping certificate by misrepresenting that shipments of beef tripe had been inspected and passed by the United States Department of

Agriculture, when in fact the product had been condemned for human food purposes.

In September 1993, the USDA agreed to halt plans to withdraw inspection services from a Federally inspected meat processing firm in Michigan if the firm complies with the provisions of a consent decision and order which includes a five year divestiture of its former owner. The order also includes provisions whereby the former owner is precluded from directing, consulting, or conducting any business with his former plant and for summary withdrawal of inspection services.

In 1993, the USDA conducted a special review of meat and poultry plants throughout the country. The unannounced reviews were conducted by a special FSIS enforcement team. This team, based in Lawrence, Kansas, conducted special reviews and made quarterly reports to the Secretary on its findings. Of the 90 plants that were reviewed, 52 were cited for various violations and 12 plants were placed under Progressive Enforcement Action (PEA).

d. Product Safety. FSIS evaluated 10,950 nonfood compounds and food processing additives to ensure that they meet established safety requirements for appropriate use during the processing of food products regulated by FSIS.

FSIS evaluated the formulations of 4,100 ingredient mixtures used to formulate meat and poultry products to assure their acceptability for use in accordance with established ingredient and additive labeling regulations and guidelines.

e. Outreach Activities. FSIS participated with the Food and Drug Administration to present workshops on nutrition labeling that were co-sponsored by the Food Processor's Institute and the Association of Food and Drug Officials at 18 sites across the United States. The workshops were conducted to provide State and local regulators and businesses in these areas with information on how to comply with USDA and FDA nutrition labeling regulations.

6. Labeling Activities:

a. Labels Processed and Approved. During fiscal year 1993, the FSIS processed a total of 132,676 label applications, and disapproved 10,154. The Quality Control reviews have continued to show positive results in the review process. A decline in submissions has occurred as a result of the new nutritional labeling requirements. Large manufacturers are waiting until all questions on nutrition labeling are answered before printing and submitting labels. The smaller companies are waiting to use the larger manufacturers' as "models" for their labels. A large influx of label applications is expected after the first of the year.

b. Final Labeling Rules Published. FSIS published a final rule to allow product ingredients present at individual levels of 2 percent or less by weight to be listed in the ingredients statement in other than descending order of predominance. The rule will allow manufacturers to adjust ingredients in a formulation present at 2 percent or less without resubmitting the labeling for new approval each time such an adjustment is made.

c. Safe Handling Instructions. FSIS published an interim final rule to mandate the inclusion of safe handling instructions on the labeling of raw and partially cooked meat and poultry products. The safe handling label noted that some food products may contain bacteria that can cause illness if mishandled or cooked improperly. The label

further notes that raw meat and poultry should be: refrigerated or frozen; thawed in a refrigerator or microwave; kept separate from other foods and working surfaces, while hands and utensils should be washed after touching raw meats; cooked thoroughly; and, refrigerated immediately or discarded. Prior to the effective date of the rule, USDA was challenged in court by three grocers' associations on the basis that USDA violated the Administrative Procedures Act in publishing a rule without notice and comment. The Court found in favor of the plaintiffs and struck down the rule. The Agency is proposing to amend the Federal meat and poultry products inspection regulations to make safe handling instructions mandatory on all raw meat and poultry product labeling. All official establishments and retailers would be required to comply with the requirement that safe handling instructions appear on product labels by April 15, 1994. The comment period for the proposed rule closed December 20, 1993.

7. International Issues:

a. U.S. Exports. In November 1992, the U.S. Trade Representative announced that the U.S. and the European Community (EC) signed an agreement ending the dispute over the Third Country Directive. The announcement followed several years of a near-stalemate in resolving technical inspection issues concerning the application of the EC's Third Country Directive, which details requirements for red meat slaughter plants that want to export to the EC. Since the signing, the EC has approved a number of plants, allowing the U.S. to resume exporting product to the EC.

During 1992, the most recent year for which statistics are available, the U.S. exported over 1.36 million metric tons (3.0 billion pounds) of red meat and poultry to over 100 countries.

The United States and Russian officials have negotiated a bilateral agreement which will facilitate entry of beef, pork, and poultry products into Russia, upon U.S. certification that the product is free of numerous diseases of public health and animal health concern to the Russians.

The first of three deliveries of fresh frozen pork totaling 8,119,392 pounds was sent to Russia in early November 1993. This product was purchased from five different U.S. producers by AMS on behalf of the Commodity Credit Corporation for donation to the Russian government. Two additional deliveries are included in this program that represents $19 million of pork carcasses.

b. Country Eligibility of Red Meat and Poultry Products. FSIS conducted on-site reviews of inspection programs in all eligible exporting countries. There were 35 countries eligible to export to the U.S. at the end of the fiscal year.

Paraguay and Spain reactivated their country meat export eligibility status in 1993. After a lapse of several years, Iceland was granted an annual certification and can now certify establishments to export meat products to the U.S.

c. Export Certification Information System. The Customs Service and FSIS have initiated a joint project to share data collected first by Customs, from brokers and foreign government officials, and then transmitted electronically to FSIS. This project will begin as an electronic data interchange between Australia, New Zealand, and the U.S., with Customs taking the lead for the U.S. The three countries have agreed to use a standard United Nations messaging protocol to electronically transmit health certificates (known as SANCERTS) from

country to country. Australia and New Zealand have requested interim UN approval of the standard SANCERT message, which would allow it to be used on a trial basis for testing over a twelve-month period. Customs and FSIS are currently developing the electronic system interface that will allow for data exchange between the two agencies. There are no significant problems anticipated in achieving total electronic data interchange between the three countries.

FSIS and the Customs Service are also partners in an effort to expand the electronic data interchange project to U.S. exports. FSIS is currently designing the Export Certification Information System (ECIS), which will automate and centralize the process of issuing health certificates for all meat and poultry products exported to foreign countries. Once the new procedure is in place, Customs and FSIS will pilot test the electronic transmission of export certificates in the standard SANCERT format to Japan.

The Library of Foreign Country Requirements, a feature of the Export Certification Information System, is available to U.S. exporters. All files are kept current and dated. The service is available 24 hours a day, is free of charge, and requires minimal computer equipment on the part of exporting firms.

d. World Congress on Meat and Poultry Inspection. Representatives from 11 countries and the European Community Commission gathered at College Station, Texas, October 11-14, 1993, for the World Congress on Meat and Poultry Inspection. FSIS and Texas A & M University co-hosted the Congress. Topics addressed in working sessions were pre-harvest and post-harvest pathogen reduction, traditional post-mortem inspection, residue control, risk analysis, and microbiological criteria. Comprehensive safety assurance is to be achieved by applying risk analysis concepts in each phase of the meat and poultry production and consumption cycle. Integrated systems approaches incorporating Hazard Analysis and Critical Control Points (HACCP) were advocated. Cooperation and communication among producers, processors, distributors, consumers and regulatory authorities, and the education of all food handlers were seen as a necessity in raising the level of confidence in systems for assuring the safety of meat and poultry products and other foods.

8. Consumer Services:

a. Flood Relief. FSIS provided extensive food handling information to consumers in the mid-Western States affected by the devastating floods.

b. Consumer and Food Safety Education. As a result of the tragic outbreaks of E. coli 0157:H7 bacteria, FSIS focused its major consumer efforts on educating the public about the hazards of E. coli 0157:H7 and how to prevent illness from the bacteria. FSIS prepared background papers, speeches, special feature articles, TV and radio public service announcements on E. coli, and also devoted a special issue of Food News for Consumers, a quarterly magazine targeted to food editors of newspapers and magazines, to E. coli information. Several of the articles on E. coli were reprinted and distributed through conventions and special mailings to consumer organizations.

FSIS and FDA held a teleconference for State health officials to discuss the lessons learned from E. coli outbreaks and the steps to take to prevent foodborne illnesses. The satellite-beamed conference reached health professionals in 49 States.

During fiscal year 1993 the Meat and Poultry Hotline received approximately 158,000 calls from consumers, business people, students, teachers, and the media.

Approximately 800 media contacts reached millions of people through information placements in newspapers, magazines, television, radio, and various publications. Audiovisual aids were produced for distribution to the general public and professional audiences and information was disseminated through conventions and trade organizations.

## PASSENGER MOTOR VEHICLES

Age and mileage data for passenger motor vehicles on hand as of September 30, 1993 are as follows:

| Age-Year Model | Age Data | | | Mileage Data | |
|---|---|---|---|---|---|
| | Number of Vehicles | Percent of Total | Lifetime Mileage (thousands) | Number of Vehicles | Percent of Total |
| 1988 Toyota | 1 | 100 | 65-75 | 1 | 100 |

The passenger motor vehicle owned by Food Safety and Inspection Service is used by Import Inspectors in American Samoa.

# ANIMAL AND PLANT HEALTH INSPECTION SERVICE

## Purpose Statement

The Animal and Plant Health Inspection Service (APHIS) was established by the Secretary of Agriculture on April 2, 1972, under the authority of Reorganization Plan No. 2 of 1953 and other authorities. The primary mission of APHIS is to protect the Nation's animal and plant resources from diseases and pests in order to preserve the marketability of U.S. agricultural products within this country and for export. The mission is carried out under the major areas of activity, as follows:

Pest and Disease Exclusion: The Agency conducts inspection and quarantine activities at U.S. ports-of-entry to prevent the introduction of exotic animal and plant diseases and pests. The Agency also participates in inspection, survey, and control activities in foreign countries to reinforce its domestic activities. User fees cover phytosanitary certificates and inspection services for international passengers, and commercial vessels, aircraft, trucks, and railroad cars.

Plant and Animal Health Monitoring: The Agency conducts programs to assess animal and plant health, detect endemic and exotic diseases and pests, and ensure compliance with interstate movement and other disease control regulations within the jurisdiction of the Agency.

Pest and Disease Management Programs: The Agency carries out programs to control and eradicate plant pest infestations and animal diseases that threaten the United States; reduce agricultural losses caused by predatory animals, birds, and rodents; provide technical assistance to cooperators such as States, counties, and farmer or rancher groups, and foundations.

Animal Care: The Agency conducts regulatory activities which ensure the humane care and treatment of animals and horses as required by the Animal Welfare and Horse Protection Acts. These activities include inspection of certain establishments which handle animals intended for research, exhibition, and as pets, and monitoring of certain horse shows.

Scientific and Technical Services: The Agency performs other regulatory activities, including the development of standards for the licensing and testing of veterinary biologicals to ensure their safety and effectiveness; diagnostic activities in support of the control and eradication programs in other functional components; applied research aimed at reducing economic damage from vertebrate animals; development of new pest and animal damage control methods and tools; and regulatory oversight of genetically engineered products.

There were 5,157 permanent full-time employees and 1,654 other than permanent full-time employees as of September 30, 1993. Of the total, 951 permanent full-time employees and 74 other than permanent full-time employees work in the Washington D.C. metropolitan area. Field activities are managed on a national basis through 10 regional offices and 440 field offices, including area offices, work stations, technical centers, and animal import centers. Much of the work is conducted in cooperation with State and local agencies, private groups, and foreign governments. APHIS performs work in the 50 States, Guam, Puerto Rico, Virgin Islands, Mexico, Central America, South America, the Caribbean, Western Europe, Australia, Asia, and Africa.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Appropriated: | | | | | | |
| Salaries and Expenses..... | $349,538,000 | 4,324 | $348,104,000 | 4,343 | $334,539,000 | 4,137 |
| Transfer to Office of the Secretary..... | -212,000 | -- | -- | -- | -- | -- |
| Agricultural quarantine inspection user fees..... | 83,362,000 | 1,530 | 91,460,000 | 1,604 | 101,860,000 | 1,823 |
| Emergency transfers (CCC) | 16,094,404 | 115 | -- | -- | -- | -- |
| Puerto Rico cattle tick..... | 10,825,000 | -- | 12,472,000 | -- | -- | -- |
| Buildings and Facilities..... | 10,400,000 | -- | 10,145,000 | -- | 6,973,000 | -- |
| | 470,007,404 | 5,969 | 462,181,000 | 5,947 | 443,372,000 | 5,960 |
| Obligations under other USDA Appropriations: | | | | | | |
| Agricultural Cooperative Service: for administrative support..... | 145,549 | 3 | 147,000 | 3 | -- | -- |
| Agricultural Marketing Service: for administrative and technical support..... | 1,750,000 | 27 | 1,750,000 | 27 | 1,750,000 | 27 |
| Agricultural Research Service: for administrative support..... | 7,000 | -- | 7,000 | -- | 7,000 | -- |
| for plant control..... | 131,262 | -- | 135,000 | -- | 135,000 | -- |
| for animal control..... | 27,109 | -- | 30,000 | -- | 30,000 | -- |
| for systems furniture..... | 41,000 | -- | -- | -- | -- | -- |
| Agricultural Stabilization and Conservation Service: for testing of tobacco samples..... | 150,000 | -- | 150,000 | -- | 150,000 | -- |
| Cooperative State Research Service: for a biotechnology consultant..... | 35,000 | 1 | -- | -- | -- | -- |
| Federal Grain Inspection Service: for administrative support..... | 965,300 | 31 | 965,000 | 31 | 965,000 | 31 |
| Food Safety Inspection Service: for administraive support..... | 30,118 | -- | 30,000 | -- | 30,000 | -- |

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Human Nutrition Information Service: for administrative support..... | 95,194 | -- | 95,000 | -- | 95,000 | -- |
| for systems furniture..... | 280,000 | -- | -- | -- | -- | -- |
| Office of International Cooperation and Dev.: for employee services and training and animal damage control..... | 643,240 | -- | 709,000 | -- | 709,000 | -- |
| Office of Inspector Gen.: for administrative support..... | 19,341 | -- | 20,000 | -- | 20,000 | -- |
| Office of Personnel Management: for the Presidential Management Intern Program..... | 4,000 | -- | -- | -- | -- | -- |
| Packers and Stockyards Administration: for administrative support..... | 287,750 | 6 | 288,000 | 6 | 288,000 | 6 |
| Total, Other Agriculture Appropriations..... | 4,611,863 | 68 | 4,326,000 | 67 | 4,179,000 | 64 |
| Total, Agriculture Appropriations..... | 474,619,267 | 6,037 | 466,507,000 | 6,014 | 447,551,000 | 6,024 |
| Other Federal Funds: | | | | | | |
| Department of Energy: for animal damage control activities..... | 29,505 | -- | 30,000 | -- | 30,000 | -- |
| Department of the Interior: Fish and Wildlife Service: for animal damage control activities..... | 284,414 | -- | 300,000 | -- | 300,000 | -- |
| Bureau of Land Management: for animal damage control activities... | 15,000 | -- | 15,000 | -- | 15,000 | -- |
| National Park Service: for animal damage control activities..... | 146,885 | -- | 150,000 | -- | 150,000 | -- |
| Department of Treasury: for shuttle service..... | 69,147 | -- | -- | -- | -- | -- |
| Federal Aviation Administration: for animal damage control activities... | 300,000 | -- | 300,000 | -- | 300,000 | -- |
| Forest Service: for animal damage control and gypsy moth control..... | 336,195 | -- | 300,000 | -- | 300,000 | -- |
| Tennessee Valley Authority: for animal damage control activities... | 108,135 | -- | 110,000 | -- | 110,000 | -- |

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| U.S. Air Force: for animal damage control activities | 87,447 | – | 90,000 | – | 90,000 | – |
| U.S. Army: for animal damage control activities | 961,109 | – | 950,000 | – | 950,000 | – |
| U.S. Navy: for preclearance activities | 85,000 | – | 85,000 | – | 85,000 | – |
| for animal damage control activities | 1,229,706 | – | 1,300,000 | – | 1,300,000 | – |
| Total, Other Federal Funds | 3,652,543 | – | 3,630,000 | – | 3,630,000 | – |
| Total, Federal Funds | 478,271,810 | 6,037 | 470,137,000 | 6,014 | 451,181,000 | 6,024 |
| Reimbursements: | | | | | | |
| Funds from State and local governments for animal damage control activities | 6,889,798 | 219 | 7,000,000 | 290 | 7,000,000 | 185 |
| California Department of Food and Agriculture: for inspection services | 2,406,873 | 51 | 2,400,000 | 51 | 2,400,000 | 51 |
| for pink bollworm facility | 1,305,000 | – | 1,305,000 | – | 1,305,000 | – |
| Illegally imported birds | 144,720 | – | 150,000 | – | 150,000 | – |
| Import-Export user fees | 1,017,220 | 20 | 3,025,000 | 50 | 4,200,000 | 72 |
| Phytosanitary certificate user fees | 2,913,642 | 9 | 3,243,000 | 12 | 3,502,000 | 15 |
| Reimbursable overtime | 9,619,363 | – | 10,183,000 | – | 10,997,000 | – |
| Truman Animal Import Center | 1,616,330 | – | 1,200,000 | – | 1,200,000 | – |
| Veterinary diagnostics user fees | 73,626 | – | 980,000 | – | 980,000 | – |
| Trust Funds: | | | | | | |
| Feed, care, and attendants for animals in quarantine | 2,569,250 | 23 | 2,397,000 | 23 | 2,397,000 | 23 |
| Miscellaneous Contributed Funds | 3,048,750 | 30 | 4,524,000 | 30 | 4,524,000 | 30 |
| Total, Non-Federal Funds | 31,604,572 | 352 | 36,407,000 | 456 | 38,655,000 | 376 |
| Total, Animal and Plant Health Inspection Service | 509,881,008 | 6,389 | 506,544,000 | 6,470 | 489,836,000 | 6,400 |

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| | 1993 | | | 1994 | | | 1995 | | |
|---|---|---|---|---|---|---|---|---|---|
| Grade | Headquarter | Field | Total | Headquarter | Field | Total | Headquarter | Field | Total |
| ES-5 | 5 | 4 | 9 | 6 | 2 | 8 | 6 | 2 | 8 |
| ES-4 | 4 | 5 | 9 | 5 | 5 | 10 | 5 | 5 | 10 |
| ES-3 | 0 | 2 | 2 | 2 | 1 | 3 | 2 | 1 | 3 |
| ES-2 | 1 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| ES-1 | 1 | 0 | 1 | 2 | 0 | 2 | 2 | 0 | 2 |
| GS-15 | 50 | 27 | 77 | 46 | 25 | 71 | 45 | 25 | 70 |
| GS-14 | 165 | 129 | 294 | 163 | 127 | 290 | 160 | 125 | 285 |
| GS-13 | 155 | 259 | 414 | 152 | 258 | 410 | 149 | 256 | 405 |
| GS-12 | 107 | 589 | 696 | 108 | 597 | 705 | 107 | 591 | 698 |
| GS-11 | 110 | 771 | 881 | 116 | 781 | 897 | 114 | 773 | 887 |
| GS-10 | 3 | 6 | 9 | 3 | 6 | 9 | 3 | 6 | 9 |
| GS-09 | 54 | 805 | 859 | 59 | 815 | 874 | 58 | 807 | 865 |
| GS-08 | 103 | 175 | 278 | 107 | 177 | 284 | 106 | 175 | 281 |
| GS-07 | 47 | 371 | 418 | 51 | 381 | 432 | 50 | 377 | 427 |
| GS-06 | 80 | 181 | 261 | 81 | 183 | 264 | 80 | 182 | 262 |
| GS-05 | 82 | 494 | 576 | 83 | 502 | 585 | 82 | 497 | 579 |
| GS-04 | 42 | 296 | 338 | 43 | 300 | 343 | 42 | 297 | 339 |
| GS-03 | 11 | 20 | 31 | 11 | 20 | 31 | 11 | 20 | 31 |
| GS-02 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 |
| Other Graded Positions..... | 12 | 355 | 367 | 12 | 360 | 372 | 12 | 348 | 360 |
| Ungraded Positions ..... | 0 | 114 | 114 | 0 | 115 | 115 | 0 | 114 | 114 |
| Total Permanent Positions ..... | 1,032 | 4,605 | 5,637 | 1,051 | 4,658 | 5,709 | 1,035 | 4,604 | 5,639 |
| Unfilled Positions End-of-Year..... | -81 | -399 | -480 | -85 | -403 | -488 | -85 | -403 | -488 |
| Total, Permanent Employment, End-of-Year..... | 951 | 4,206 | 5,157 | 966 | 4,255 | 5,221 | 950 | 4,201 | 5,151 |
| Staff-Years: Ceiling..... | 1,014 | 5,375 | 6,389 | 1,027 | 5,443 | 6,470 | 1,016 | 5,384 | 6,400 |

ANIMAL AND PLANT HEALTH INSPECTION SERVICE
CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | | 1993 | 1994 | 1995 |
|---|---|---|---|---|
| Personnel Compensation: | | | | |
| | Headquarters | $46,428,060 | $43,238,400 | $39,098,000 |
| | Field | 185,712,239 | 172,953,600 | 156,392,000 |
| 11 | Total personnel compensation | 232,140,299 | 216,192,000 | 195,490,000 |
| 12 | Personnel benefits | 47,298,654 | 48,520,000 | 43,350,000 |
| 13 | Benefits for former personnel | 1,460,690 | 816,000 | 700,000 |
| Total personnel compensation and benefits | | 280,899,643 | 265,528,000 | 239,540,000 |
| Other Objects: | | | | |
| 21 | Travel | 15,121,549 | 13,707,000 | 14,761,000 |
| 22 | Transportation of things | 4,416,484 | 4,487,000 | 4,489,000 |
| 23.2 | Rental payments to others | 3,650,021 | 3,645,000 | 3,633,000 |
| 23.3 | Communications, utilities and miscellaneous charges | 15,306,756 | 15,416,000 | 16,115,000 |
| 24 | Printing and reproduction | 1,392,599 | 598,000 | 700,000 |
| 25.2 | Other services | 57,849,522 | 63,006,000 | 75,030,000 |
| 26 | Supplies and materials | 24,635,658 | 26,878,000 | 26,708,000 |
| 31 | Equipment | 10,261,873 | 27,602,000 | 26,422,000 |
| 32 | Lands and structures | 10,028 | 27,000 | 27,000 |
| 41 | Grants, contributions and subsidies | 21,996,287 | 26,494,000 | 23,668,000 |
| 42 | Insurance claims and indemnities | 2,613,971 | 4,626,000 | 5,285,000 |
| 43 | Interest and dividends | 21,035 | 22,000 | 21,000 |
| Total other objects | | 157,275,783 | 186,508,000 | 196,859,000 |
| Total direct obligations | | 438,175,426 | 452,036,000 | 436,399,000 |
| Position Data: | | | | |
| Average Salary, ES positions | | $103,000 | $106,811 | $108,947 |
| Average Salary, GM/GS positions | | 39,500 | 40,960 | 41,667 |
| Average grade, GM/GS positions | | 8.61 | 8.61 | 8.61 |

## ANIMAL AND PLANT HEALTH INSPECTION SERVICE

The estimates include appropriation language for this item as follows (new language is underscored; deleted matter is enclosed in brackets):

Salaries and Expenses:

For expenses, not otherwise provided for, including those pursuant to the Act of February 28, 1947, as amended (21 U.S.C. 114b-c), necessary to prevent, control, and eradicate pests and plant and animal diseases; to carry out inspection, quarantine, and regulatory activities; to discharge the authorities of the Secretary of Agriculture under the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C. 426-426b); and to protect the environment, as authorized by law, [$439,564,000,] $334,539,000, [of which $91,460,000 shall be derived from user fees deposited in the Agricultural Quarantine Inspection User Fee Account, and] of which $4,938,000, to remain available until expended, for the control of outbreaks of insects, plant diseases, animal diseases and for control of pest animals and birds to the extent necessary to meet emergency conditions: ,and of which $3,500,000 shall be for the Integrated Systems Acquisition Project, to remain available until expended: Provided, That [if the demand for Agricultural Quarantine Inspection (AQI) user fee financed services is greater than expected and/or other uncontrollable events occur, the Agency may exceed the AQI User Fee limitation by up to 10 per centum, provided such funds are available in the Agricultural Quarantine Inspection User Fee Account, and with notification to the Appropriation Committees:] in fiscal year 1995 and thereafter, fees collected and deposited in the Agricultural Quarantine Inspection User Fee Account shall be available for authorized purposes without further appropriation: Provided further, That in fiscal year 1995 and thereafter, the Agency is authorized to collect fees for the total direct and indirect costs of technical assistance, goods, or services provided to States, other political subdivisions, domestic and international organizations, foreign governments, or individuals, such fees shall be credited to this account, to remain available until expended, without further appropriation, for providing such assistance, goods, or services: Provided further, That no funds shall be used to formulate or administer a brucellosis eradication program for the current fiscal year that does not require minimum matching by the States of at least 40 per centum: Provided further, That this appropriation shall be available for field employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed $40,000 shall be available for employment under 5 U.S.C. 3109: Provided further, That this appropriation shall be available for the operation and maintenance of aircraft and the purchase of not to exceed four, of which two shall be for replacement only: Provided further, That, in addition, in emergencies which threaten any segment of the agricultural production industry of this country, the Secretary may transfer from other appropriations or funds available to the agencies or corporations of the Department such sums as he may deem necessary, to be available only in such emergencies for the arrest and eradication of contagious or infectious disease of pests or animals, poultry, or plants, and for expenses in accordance with the Act of February 28, 1947, as amended, and section 102 of the Act of September 21, 1944, as amended, and any unexpended balances of funds transferred for such emergency purposes in the next preceding fiscal year shall be merged with such transferred amounts: Provided further, That appropriations hereunder shall be available pursuant to law (7 U.S.C. 2250) for the repair and alteration of leased buildings and improvements, but unless otherwise provided the cost of altering any one building during the fiscal year shall not exceed 10 per centum of the current replacement value of the building.

The first change provides no-year authority for the contingency fund. This was previously shown in Section 706 of the General Provisions.

The second change provides no-year authority for the Integrated Systems Acquisition Project. This was previously shown in Section 706 of the General Provisions.

The third change would allow APHIS to provide increased AQI services as the demand for international commerce and travel grows. Under existing legislation, AQI obligations are subject to appropriation limitations. As the demand for inspection services increases, APHIS needs to increase staffing to match actual levels of international commerce and travel.

The fourth change would give APHIS authority to recover the direct and indirect costs of providing goods and services, such as training, scientific instruments not available commercially, and other direct assistance requested by States, local jurisdictions, public and private organizations, international organizations, foreign governments, and individuals, when providing technical assistance, goods, and services is in accordance with the purposes of this appropriation.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

SALARIES AND EXPENSES

| | |
|---|---|
| Appropriations Act, 1994 | $439,564,000 |
| Budget Estimate, 1995 | 436,399,000 |
| Decrease in Appropriation | -3,165,000 |

SUMMARY OF INCREASES AND DECREASES
(On basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| AQI Appropriated | $24,246,000 | +$251,000 | +$643,000 | $25,140,000 |
| AQI User Fees | 91,460,000 | +743,000 | +9,657,000 | 101,860,000 |
| Foot-and-mouth disease | 4,046,000 | +5,000 | -56,000 | 3,995,000 |
| Import/Export Inspection | 6,800,000 | +53,000 | -318,000 | 6,535,000 |
| International Programs | 5,826,000 | +26,000 | +254,000 | 6,106,000 |
| Mediterranean Fruit Fly Exclusion | 10,199,000 | +30,000 | -140,000 | 10,089,000 |
| Mexican Fruit Fly | 2,272,000 | +11,000 | -127,000 | 2,156,000 |
| Screwworm | 34,645,000 | +44,000 | -660,000 | 34,029,000 |
| Animal Health Monitor. & Surv. | 59,933,000 | +272,000 | -824,000 | 59,381,000 |
| Animal & Plt Hlth. Reg.Enforce. | 5,849,000 | +53,000 | -37,000 | 5,865,000 |
| Fruit Fly Detection | 3,950,000 | +28,000 | -55,000 | 3,923,000 |
| Pest Detection | 3,444,000 | +30,000 | 732,000 | 4,206,000 |
| ADC Operations | 26,092,000 | +223,000 | -2,884,000 | 23,431,000 |
| Aquaculture | 0 | 0 | +493,000 | 493,000 |
| Biocontrol | 5,702,000 | +52,000 | +2,000,000 | 7,754,000 |
| Boll Weevil | 13,226,000 | +39,000 | -181,000 | 13,084,000 |
| Brucellosis | 31,004,000 | +122,000 | -5,374,000 | 25,752,000 |
| Cattle Ticks | 4,597,000 | +45,000 | -64,000 | 4,578,000 |
| Golden Nematode | 658,000 | +6,000 | -49,000 | 615,000 |
| Gypsy Moth | 5,203,000 | +46,000 | -72,000 | 5,177,000 |
| Honey Bee Pest | 380,000 | 0 | -380,000 | 0 |
| Imported Fire Ant | 2,700,000 | 0 | -2,700,000 | 0 |
| Misc. Pests & Diseases | 1,996,000 | +20,000 | -28,000 | 1,988,000 |
| Noxious Weeds | 475,000 | +2,000 | -73,000 | 404,000 |
| Pink Bollworm | 2,292,000 | +9,000 | -1,232,000 | 1,069,000 |
| Pre-Harvest Program | 0 | 0 | +5,702,000 | 5,702,000 |
| Pseudorabies | 4,543,000 | +19,000 | -1,145,000 | 3,417,000 |
| Russian Wheat Aphid | 2,400,000 | 0 | -2,400,000 | 0 |
| Salmonella Enteritidis | 3,411,000 | +20,000 | -47,000 | 3,384,000 |
| Scrapie | 3,000,000 | +10,000 | -41,000 | 2,969,000 |
| Sweet Potato Whitefly | 3,514,000 | 0 | -3,514,000 | 0 |
| Tropical Bont Tick | 0 | 0 | +537,000 | 537,000 |
| Tuberculosis | 5,538,000 | +38,000 | -77,000 | 5,499,000 |
| Witchweed | 4,081,000 | +9,000 | -2,115,000 | 1,975,000 |
| Animal Welfare | 9,262,000 | +73,000 | -132,000 | 9,203,000 |
| Horse Protection | 481,000 | +3,000 | -122,000 | 362,000 |
| ADC Methods Development | 9,681,000 | +61,000 | -390,000 | 9,352,000 |

15-10

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Biotechnology Environmental Protection | 7,756,000 | +46,000 | -112,000 | 7,690,000 |
| Plant Methods Development Labs. | 5,084,000 | +52,000 | -77,000 | 5,059,000 |
| Veterinary Biologics | 10,434,000 | +81,000 | -144,000 | 10,371,000 |
| Veterinary Diagnostics | 14,946,000 | +71,000 | -206,000 | 14,811,000 |
| All Other | 8,438,000 | 0 | 0 | 8,438,000 |
| Total, Salaries & Expenses | 439,564,000 | +2,593,000 | -5,758,000 | 436,399,000 |

PROJECT STATEMENT
(On Basis of Appropriation)

| Project | 1993 Actual | | 1994 Estimated | | Increase or Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | | Amount | Staff-Years |
| 1. Pest and disease exclusion: | | | | | | | |
| (a) Agricultural quarantine inspection (Appropriated)... | $23,742,021 | 546 | $24,246,000 | 600 | $894,000 | $25,140,000 | 618 |
| (b) Agricultural quarantine inspection (User fees)..... | 83,362,000 | 1,529 | 91,460,000 | 1,604 | 10,400,000 | 101,860,000 | 1,838 |
| (c) Foot-and-mouth disease..... | 4,226,198 | 10 | 4,046,000 | 11 | -51,000 | 3,995,000 | 10 |
| (d) Import-Export inspection.... | 11,163,785 | 148 | 6,800,000 | 91 | -265,000 | 6,535,000 | 89 |
| (e) International programs..... | 4,366,211 | 46 | 5,826,000 | 50 | 280,000 | 6,106,000 | 49 |
| (f) Mediterranean fruit fly..... | 10,424,824 | 69 | 10,199,000 | 73 | -110,000 | 10,089,000 | 70 |
| (g) Mexican fruit fly..... | 2,137,046 | 21 | 2,272,000 | 25 | -116,000 | 2,156,000 | 23 |
| (h) Screwworm..... | 31,167,301 | 87 | 34,645,000 | 91 | -616,000 | 34,029,000 | 82 |
| Total, Pest and Disease Exclusion..... | 170,589,386 | 2,456 | 179,494,000 | 2,545 | (1) 10,416,000 | 189,910,000 | 2,779 |
| 2. Plant and animal health monitoring: | | | | | | | |
| (a) Animal health monitoring & surveillance..... | 59,378,000 | 636 | 59,933,000 | 657 | -552,000 | 59,381,000 | 643 |
| (b) Animal and plant health regulatory enforcement..... | 5,623,823 | 125 | 5,849,000 | 129 | 16,000 | 5,865,000 | 117 |
| (c) Fruit fly detection..... | 3,233,202 | 49 | 3,950,000 | 51 | -27,000 | 3,923,000 | 50 |
| (d) Pest detection..... | 4,281,942 | 60 | 3,444,000 | 53 | 762,000 | 4,206,000 | 58 |
| Total, Plant and animal health monitoring..... | 72,516,967 | 870 | 73,176,000 | 890 | (2) 199,000 | 73,375,000 | 868 |
| 3. Pest and disease management: | | | | | | | |
| (a) Animal damage control operations..... | 25,568,147 | 511 | 26,092,000 | 525 | -2,661,000 | 23,431,000 | 482 |
| (b) Aquaculture..... | – | – | – | – | 493,000 | 493,000 | 6 |
| (c) Biocontrol..... | 5,038,081 | 105 | 5,702,000 | 114 | 2,052,000 | 7,754,000 | 124 |
| (d) Boll weevil..... | 10,089,239 | 100 | 13,226,000 | 95 | -142,000 | 13,084,000 | 96 |
| (e) Brucellosis..... | 30,356,655 | 277 | 31,004,000 | 255 | -5,252,000 | 25,752,000 | 197 |
| (f) Cattle ticks..... | 6,216,057 | 133 | 4,597,000 | 135 | -19,000 | 4,578,000 | 104 |
| (g) Golden nematode..... | 644,036 | 14 | 658,000 | 13 | -43,000 | 615,000 | 12 |
| (h) Grasshopper and Mormon cricket..... | 3,178,714 | 52 | – | 55 | – | – | 34 |
| (i) Grasshopper and Mormon cricket: no-year..... | 3,292,460 | – | – | – | – | – | – |
| (j) Gypsy moth..... | 4,479,802 | 101 | 5,203,000 | 104 | -26,000 | 5,177,000 | 98 |
| (k) Honeybee pests..... | 283,255 | 10 | 380,000 | 8 | -380,000 | – | – |
| (l) Imported fire ant..... | 3,475,158 | 24 | 2,700,000 | – | -2,700,000 | – | – |
| (m) Miscellaneous plant disease..... | 2,135,211 | 34 | 1,996,000 | 39 | -8,000 | 1,988,000 | 31 |
| (n) Noxious weeds..... | 637,862 | 23 | 475,000 | 3 | -71,000 | 404,000 | 3 |
| (o) Pink bollworm..... | 2,870,127 | 24 | 2,292,000 | 18 | -1,223,000 | 1,069,000 | 17 |
| (p) Pre-harvest pathogen reduction..... | – | – | – | – | 5,702,000 | 5,702,000 | 54 |
| (q) Pseudorabies..... | 3,678,046 | 48 | 4,543,000 | 33 | -1,126,000 | 3,417,000 | 40 |
| (r) Russian wheat aphid..... | 1,920,104 | 11 | 2,400,000 | 12 | -2,400,000 | – | – |
| (s) Salmonella enteritidis..... | 2,698,747 | 48 | 3,411,000 | 48 | -27,000 | 3,384,000 | 41 |
| (t) Scrapie..... | 746,851 | 13 | 3,000,000 | 32 | -31,000 | 2,969,000 | 25 |
| (u) Sweet potato whitefly..... | 2,583,022 | 38 | 3,514,000 | 47 | -3,514,000 | – | – |
| (v) Tropical bont tick..... | – | – | – | – | 537,000 | 537,000 | 3 |
| (w) Tuberculosis..... | 3,933,216 | 52 | 5,538,000 | 56 | -39,000 | 5,499,000 | 60 |
| (x) Witchweed..... | 5,588,081 | 59 | 4,081,000 | 32 | -2,106,000 | 1,975,000 | 17 |
| Total, Pest and disease management..... | 119,412,871 | 1,677 | 120,812,000 | 1,624 | (3) -12,984,000 | 107,828,000 | 1,444 |

| Project | 1993 Actual | | 1994 Estimated | | Increase or Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | | Amount | Staff-Years |
| 4. Animal care: | | | | | | | |
| (a) Animal welfare | 9,414,220 | 172 | 9,262,000 | 177 | -59,000 | 9,203,000 | 171 |
| (b) Horse protection | 382,191 | 7 | 481,000 | 6 | -119,000 | 362,000 | 6 |
| Total, Animal care | 9,796,411 | 179 | 9,743,000 | 183 | (4) -178,000 | 9,565,000 | 177 |
| 5. Scientific and technical services: | | | | | | | |
| (a) Animal control methods development | 9,551,637 | 122 | 9,681,000 | 125 | -329,000 | 9,352,000 | 119 |
| (b) Biotechnology environmental protection | 7,685,841 | 91 | 7,756,000 | 92 | -66,000 | 7,690,000 | 98 |
| (c) Integrated systems acquisition project | 2,098,798 | 5 | 3,500,000 | 17 | – | 3,500,000 | 17 |
| (d) Plant methods development labs | 5,191,236 | 104 | 5,084,000 | 107 | -25,000 | 5,059,000 | 105 |
| (e) Veterinary biologics | 9,772,190 | 181 | 10,434,000 | 191 | -63,000 | 10,371,000 | 184 |
| (f) Veterinary diagnostics | 14,285,314 | 169 | 14,946,000 | 173 | -135,000 | 14,811,000 | 169 |
| Total, Scientific and technical services | 48,585,016 | 672 | 51,401,000 | 705 | (5) -618,000 | 50,783,000 | 692 |
| 6. Contingencies: plant and animal diseases and pests | 5,838,672 | – | 4,938,000 | – | – | 4,938,000 | – |
| 7. Transfer to the Office of the Secretary | -212,000 | – | – | – | – | – | – |
| Unobligated balance available start-of-year | -22,731,000 | – | – | – | – | – | – |
| Unobligated balance available end-of-year | 35,663,000 | – | – | – | – | – | – |
| Unobligated balance expiring | 1,086,000 | – | – | – | – | – | – |
| Total, Available or estimate, salaries and expenses | 440,545,323 | 5,854 | 439,564,000 | 5,947 | -3,165,000 | 436,399,000 | 5,960 |
| 8. CCC transfer (fruit fly and Asian gypsy moth | 16,094,304 | 115 | – | – | – | – | – |
| 9. From FNS for cattle tick | 10,825,000 | – | 12,472,000 | – | -12,472,000 | – | – |
| 10. Advances and Reimbursements: | | | | | | | |
| (a) Federal | 8,264,406 | 68 | 7,956,000 | 67 | -147,000 | 7,809,000 | 64 |
| (b) Non-Federal | 25,986,572 | 299 | 29,486,000 | 403 | 2,248,000 | 31,734,000 | 323 |
| Total, Advances and Reimbursements | 34,250,978 | 367 | 37,442,000 | 470 | 2,101,000 | 39,543,000 | 387 |
| Total, Available or estimate | 501,715,605 | 6,336 | 489,478,000 | 6,417 | -13,536,000 | 475,942,000 | 6,347 |

**No-Year and Emergency Programs**

| Project | 1993 Actual | 1994 Carry-Over | 1994 Appropriated | 1994 Available |
|---|---|---|---|---|
| Animal Damage Control | 5,988,955 | 900,842 | – | 900,842 |
| Boll weevil | 10,089,239 | 3,045,761 | 13,226,000 | 16,271,761 |
| Grasshopper/Mormon Cricket reserve fund | 3,292,460 | 13,267,552 | – | 13,267,552 |
| 10% of Screwworm | 2,437,852 | 1,026,648 | 3,465,000 | 4,491,648 |
| Contingency Fund | 5,838,671 | 2,086,662 | 4,938,000 | 7,024,662 |
| Fruit flies | 13,476,983 | 12,530,471 | – | 12,530,471 |
| Asian Gypsy Moth | 1,328,733 | 739,918 | – | 739,918 |
| ISAP | 2,098,817 | 1,837,189 | 3,500,000 | 5,337,189 |
| Total | 44,551,710 | 35,435,043 | 25,129,000 | 60,564,043 |

## EXPLANATION OF PROGRAM

The Animal and Plant Health Inspection Service (APHIS) was established on April 2, 1972, pursuant to the authority of the Reorganization Plan No. 2 of 1953.

APHIS conducts cooperative programs with State and local agencies and organizations to control, eradicate, and prevent the movement of plant and animal diseases and pests. Inspection and regulatory programs prevent the introduction into the United States of pests and diseases of foreign origin and the spread of established pests within the country. Under the Federal Noxious Weed Act of 1974, the Agency carries out survey, regulatory, and control actions to protect American agriculture from the invasion and interstate spread of noxious weeds. APHIS, under the Endangered Species Act, regulates the import and export of designated endangered plant species and ensures that cooperative Federal-State pest control programs which utilize pesticides will not adversely affect endangered species. Under the Virus-Serum-Toxin Act, APHIS carries out activities to prevent the production and distribution of contaminated, dangerous, or harmful veterinary biologics. Under the authority of the Animal Welfare Act as amended, the Agency conducts activities to ensure that certain animals intended for use in research or for exhibition purposes are provided with humane care and treatment, to assure humane treatment of animals during transportation in commerce, and to prevent the sale or use of animals which have been stolen. APHIS, under the authority of the Horse Protection Act, works to prevent the interstate movement or exhibition of horses which have been "sored." Under the Swine Health Protection (SHP) Act, the Agency conducts a Federal-State program to control the feeding of raw food waste to swine. APHIS, under the authority of the Animal Damage Control Act of 1931, researches and carries out cooperative programs to control wildlife-caused losses to agriculture, safety hazards at airports, and public nuisances in a variety of areas. APHIS, under authority of the Plant Pest Act, Plant Quarantine Act, and Virus-Serum-Toxin Act coordinates the development and implementation of the Department's regulation and evaluation of applications of a number of biotechnologically derived products for test permits and commercial licenses.

The APHIS "Salaries and Expenses" appropriation and user fees fund the following activities:

1. Pest and Disease Exclusion Programs -- APHIS carries out inspections at U.S. ports-of-entry to prevent the introduction of foreign plant and animal pests and diseases which are harmful to our country's agriculture. APHIS develops and conducts preclearance programs to ensure that foreign agricultural products destined for the United States do not present a risk to U.S. agriculture. APHIS engages in cooperative programs to control pests of imminent concern to the United States and to strengthen foreign plant protection and quarantine organizations. APHIS also certifies plants and plant products for export and regulates imports and exports of designated endangered plant species. APHIS assists U.S. exporters and the Foreign Agricultural Service in revising foreign plant and animal import regulations to encourage and increase U.S. agricultural exports.

   The statutory authority supporting this program is contained in 7 U.S.C. 148 and 150aa-150jj; 19 U.S.C. 1306; and 21 U.S.C. 102, 111-120, 121-123, 127, and 135-135b. The principal legislative authorities for these activities include the Organic Act of 1944, as amended by P.L. 94-231, enacted March 15, 1976; the Plant Quarantine Act of 1912; and the Mexican Border Act of 1942. The Department's enforcement responsibilities for endangered plants are contained in the Endangered Species Act of 1973. The Airport and Airways Development Act, P.L. 94-353, Section 15(c), was enacted July 12, 1976. Section 2509 of the Food, Agriculture, Conservation, and Trade Act (Farm Bill) of 1990 as amended by Section 1203 of the 1991 Budget

Reconciliation Bill authorizes user fees for agricultural quarantine inspection and import-export inspection. The activities carried out in the pest and disease exclusion programs are as follows:

-- Agricultural Quarantine Inspection (AQI) - The purpose of the AQI program is to protect American agriculture from exotic pests and diseases and to facilitate the entry of United States agricultural products into international markets. The program carries out its mission by inspecting the increasing amount of cargo and international air and sea passengers at ports-of-entry and pre-clearance locations overseas. The AQI program also conducts inspections of cargo and people at the Mexican and Canadian borders. APHIS continues to implement innovative inspection techniques such as X-ray machines and detector dog teams to handle the increasing workload. Pre-clearance of agricultural products at foreign locations is another means of dealing with this increasing workload without increasing risk to U.S. Agriculture. The use of X-ray technology for passenger baggage has increased efficiency in passenger inspections. The detector dog teams are used at international airports and post offices for baggage and package inspections and have a success rate of 80 percent in finding concealed regulated items.

   In cooperation with the U.S. Customs Service and the Department of Defense, APHIS conducts military preclearance operations in all the major military commands. The purpose of the military preclearance programs is to inspect troops and their personal gear and to clean military vehicles and other cargo prior to return to the United States. APHIS officers provide assistance, advice, and oversight in advisory roles to military commands, as well as acting as advisors to a number of military exercises each year.

-- Foot-and-Mouth Disease (FMD) - The purpose of the FMD program is to prevent the disease in South America from entering Panama, Central America, Mexico, and the United States. An FMD eradication program is continuing in northern Colombia. Program methods include surveillance, inspection, quarantine, vaccination, and emergency preparedness. Cooperative FMD prevention agreements, using surveillance, disease investigation, and emergency preparedness are being maintained with Mexico, Panama, and all of the Central American countries. In addition, the Mexico program conducts prevention activities for all foreign animal diseases (FAD) including African horse sickness, African swine fever, and avian influenza. The Mexico and Panama programs are maintaining high containment diagnostic laboratories. FMD is one of the most costly multi-host animal diseases. Estimates show that 15-year losses of more than $20 billion could occur if FMD were to re-enter the United States.

-- Import/Export Inspection - This program protects domestic livestock, poultry, and wildlife from restricted diseases, including those transmissible from animals to humans. APHIS regulates the importations of animals and animal products and promotes markets abroad by ensuring that U.S. origin animals and animal products meet health and welfare requirements of recipient countries.

   Import Animals - This program ensures that all imported animals, germplasm, birds, and poultry meet United States health requirements. Principal methods include inspecting and approving zoos, conveyances, and entry ports; maintaining the Harry S Truman Animal Import Center in Key West, Florida; and intercepting smuggled animals and animal products.

Export Animals - The goal of the export animals program is to ensure that all certifications of being freed from contagious diseases comply with USDA health agreements with importing countries. This function is vital to the protection and expansion of the $6 billion U.S. animal and germ plasm export market.

Animal Products, Import and Export - Control of animal products involves prohibiting fresh, chilled, or frozen meats, and fresh milk from countries where rinderpest and FMD exist, and restricting chilled or frozen pork from countries with hog cholera, African swine fever, and swine vesicular disease. This ban includes commercial shipments of meat, hides, skins, trophies, glands, and animal products used in research and pharmaceutical manufacture. There are restrictions on food in the mail and in travelers' baggage and on garbage and leftover foods on aircraft and ships. APHIS enforces these restrictions at U.S. entry ports and controls importations of disease-causing agents (organisms and vectors) for research or vaccine manufacture, and laboratory animals inoculated with exotic agents.

FY 1994 import-export program plans include: (1) continued development of the National Center for Import and Export; (2) implementation of international agreements on regionalization and risk assessment-based import/export requirements; (3) preparation for regulating import and export of fish and aquaculture products; (4) further implementation of user fees for import and export services; and (5) revising regulations concerning importations of semen and embryos.

-- International Programs - The objective of International Programs is to protect United States agriculture and to promote the export of U.S. agricultural products by actively addressing pest and disease problems at their origin rather than waiting for them to arrive at our ports of entry and borders. Through International Programs, APHIS maintains a presence in countries that are significant agricultural trading partners and may also be potential sources of economically dangerous agricultural pests and diseases. APHIS personnel at overseas locations, either on permanent assignment or short-term detail, provide an effective first line of defense against the entry of foreign plant and animal diseases and pests into our country. Their presence also facilitates the export of U.S. agricultural products, and promotes the exchange of science and technology in animal and plant health, by identifying and eliminating non-tariff trade barriers to agricultural products. They provide a timely link to sanitary and phytosanitary surveillance and to update diagnostic and disease/pest control strategies practiced by countries dealing with those conditions, facilitating a two-way exchange of technology.

-- Mediterranean Fruit Fly (Medfly) - The objective of the program is to prevent sustained Medfly infestations from occurring in the continental United States, Virgin Islands, Puerto Rico, Mexico, and north of the 16° N. latitude in Central America. The Medfly, which is found throughout most of Central America, is one of the world's most destructive pests of fruits and vegetables. It is capable of becoming established in fruit and vegetable growing regions in the continental United States. Approximately 80 percent of U.S. citrus production is susceptible to Medfly. The presence of Medfly in Mexico would pose a serious threat to the United States, due to Mexico's location and its importance as a major source of winter fruits and vegetables for the United States. APHIS is currently eradicating a localized outbreak that was detected in California in FY 1992. APHIS with some assistance from Hawaii and California, constructed a sterile fruit fly rearing facility in Waimanalo, Hawaii. The facility is capable of supplying 500 million sterile flies per week for emergency eradication programs.

All flies produced at the facility will be utilized in emergency eradication efforts in FY 1994. In FY 1993, more than 14 billion sterile flies were used in California. Almost 36 billion Medflies were produced in rearing facilities in Mexico and Guatemala for the cooperative Moscamed program. This joint program with Mexico and Guatemala protects the United States by preventing the northward spread of Medfly into Mexico.

-- Mexican Fruit Fly (MFF) - The MFF, an insect pest of more than 40 species of fruit, periodically occurs in the United States, primarily in the lower Rio Grande Valley in southern Texas. Other citrus growing States such as Arizona, California, and Florida are vulnerable to MFF infestations either by migration of these flies across the northwestern border with Mexico, or from infested fruit being shipped to or through these States. Consequently, the program maintains suppression activities in the northwestern region of Mexico and regulatory programs in the lower Rio Grande Valley and adjacent portions of Mexico. Additional regulatory and suppression activities in the lower Rio Grande Valley in southern Texas, provide protection for the U.S. citrus industry. APHIS is currently conducting an eradication program in California. Sterile MFF's produced at the USDA facility in Mission, Texas, are being released to eliminate the pest.

-- Screwworm - Screwworm eradication began as an experimental project in Florida during the 1950's. The program was so successful that by 1966 the United States was declared screwworm-free. Continued reintroduction from Mexico led to a 1972 cooperative agreement to eradicate the pest from Mexico and establish a permanent barrier at the Isthmus of Tehuantepec. The program reached that barrier in 1984. However, large cattle movements from infested areas further south resulted in a high risk of reinfestation. A Memorandum of Understanding signed in January 1987, allowed the Screwworm Commission to undertake efforts to move the barrier farther south.

The goal of the screwworm program is to prevent the reintroduction of the parasitic screwworm into the United States by eradicating this insect in Mexico and Central America and establishing a permanent sustainable sterile fly barrier in Panama. In 1985, APHIS conducted a feasibility study of screwworm eradication in Central America. This study identified the Isthmus of Panama and the Guatemala/Honduras border as cost-beneficial locations for a permanent, sustainable sterile fly barrier.

Mexico was declared screwworm-free on February 25, 1991. On January 22, 1992, a mature screwworm larvae was collected in the Mexican State of Campeche. Subsequently, 61 additional cases were reported in the southern Mexican States of Campeche, Chiapas, Tabasco, Veracruz, and the northern State of Tamaulipas near Ciudad Victoria which is only 121 miles south of the United States-Mexican border. Illegal and legal importation of cattle without inspection or quarantine has been identified as the probable source of the infestations.

In spite of delays incurred by the screwworm program as a result of the outbreak in Mexico, the program has continued to make progress in Central America. Belize, Guatemala, and El Salvador are considered to be free of self-sustaining screwworm populations. El Salvador was declared technically free at a ceremony in San Salvador in October 1993. Also in October 1993, USDA was able to enter into a cooperative agreement for the eradication of screwworms in Costa Rica. Currently, the program is carrying out eradication activities in Honduras and Nicaragua. A cooperative agreement with Panama is planned for FY 1994.

The levels of pest and disease exclusion activities are shown by the selected examples that follow:

| Program | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| **Agricultural quarantine inspection:** | | | |
| Passenger inspections (millions) | 57 | 58 | 59 |
| Pest interceptions (thousands) | 52 | 53 | 54 |
| Plant and animal product and byproduct inspection: | | | |
| Airplanes (thousands) | 377 | 390 | 400 |
| Vessels (thousands) | 48 | 50 | 51 |
| Plant units processed (millions) | 456 | 460 | 465 |
| Regulated and miscellaneous cargo inspections conducted (thousands) | 973 | 990 | 995 |
| Phytosanitary export certification: | | | |
| Certificates issued (thousands) | 261 | 262 | 263 |
| Interceptions (thousands): | | | |
| Unauthorized plant material | 1,474 | 1,600 | 1,650 |
| Unauthorized animal products/byproducts | 239 | 245 | 247 |
| Unauthorized material: | | | |
| Mail | 5,815 | 5,950 | 6,000 |
| Baggage | 1,064 | 1,150 | 1,200 |
| Intercepted endangered plant species: | | | |
| Seized and placed into rescue centers | 21,132 | 12,006 | 13,000 |
| Seized and returned to country of export | 237 | 300 | 400 |
| Number of shipments of plants seized: | | | |
| Rescue centers | 789 | 800 | 810 |
| Returned to country of export | 7 | 10 | 10 |
| **Foot-and-mouth disease:** | | | |
| Exotic animal disease investigations in Mexico: | | | |
| Total investigations | 696 | 600 | 450 |
| Livestock investigations (excluding rabbits) | 396 | 300 | 250 |
| Investigations on rabbits | 300 | 300 | 200 |
| Vesicular disease investigations: | | | |
| in Panama | 17 | 20 | 20 |
| in Colombia | 290 | 400 | 400 |
| in Central America | 281 | 285 | 320 |
| in Mexico | 78 | 75 | 80 |
| Laboratory samples processed: | | | |
| in Mexico (excluding rabbits) | 400 | 400 | 400 |
| in Mexico (total) | 700 | 2,200 | 2,500 |
| in Panama | 320 | 300 | 300 |
| **Import-Export program:** | | | |
| Import inspection: | | | |
| Animals (thousands) | 4,401 | 4,000 | 4,000 |
| Personally owned pet birds | 1,386 | 1,500 | 1,500 |
| Commercial birds | 133,435 | 120,000 | 120,000 |
| Poultry (chick and poults - thousands) | 6,282 | 7,000 | 7,000 |
| Poultry hatching eggs (thousands) | 17,593 | 18,000 | 18,000 |
| Bovine, sheep, and horse semen doses | 325,000 | 300,000 | 300,000 |
| Goat and bovine embryos | 1,920 | 1,000 | 1,000 |
| Export inspection: | | | |
| Ruminants and horses (thousands) | 743 | 1,000 | 1,000 |
| Poultry (thousand) | 9,398 | 15,000 | 15,000 |
| Dozens of hatching eggs (thousands) | 10,307 | 20,000 | 20,000 |
| Bull semen (thousands) | 1,383 | 1,300 | 1,300 |
| Bovine embryos | 1,725 | 2,000 | 2,500 |
| New agreements with foreign countries to accept animal/poult exported from U.S. | 11 | 12 | 13 |
| Outbreaks of exotic animal diseases due to importations | – | – | – |
| Import/Export products: | | | |
| Import product permits | 1,786 | 2,000 | 2,000 |
| Organism and vector permits | 4,456 | 4,700 | 5,000 |
| Product export certifications | 5,000 | 5,500 | 6,000 |
| Facility/establishment inspections | 1,057 | 2,000 | 2,500 |
| Laboratory inspections | 636 | 750 | 825 |

| Program | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| **Mediterranean fruit fly:** | | | |
| Sterile insects released (millions): | | | |
| California | 14,375 | 16,100 | 18,200 |
| Hawaii | 1,500 | – | – |
| Guatemala | 17,239 | 18,000 | 20,000 |
| Mexico | 12,743 | 11,000 | 9,000 |
| Sterile insects produced (millions): | | | |
| Guatemala | 8,660 | 8,800 | 13,000 |
| Mexico | 26,631 | 27,500 | 28,000 |
| Hawaii | 18,408 | 26,000 | 26,000 |
| Jackson traps serviced by USDA (thousands): | | | |
| Mexico | 15,871 | 16,000 | 16,000 |
| Medfly detection sites: | | | |
| Mexico | 119 | 125 | 125 |
| Peten, Guatemala | 3 | 3 | 5 |
| Belize | 1 | – | – |
| **Mexican fruit fly:** | | | |
| Sterile insects released: (millions) | | | |
| Northwest Mexico | 489 | 546 | 546 |
| Northeast Mexico | 25 | 25 | 25 |
| California | 170 | 780 | 0 |
| Texas | 760 | 960 | 960 |
| McPhail traps serviced by USDA: | | | |
| Mexico | 5,088 | 5,100 | 5,100 |
| Mexfly detection sites: | | | |
| Baja California Norte | 74 | 50 | 40 |
| Lower Rio Grande (Mexico) | 8 | – | – |
| Sonora Free Zone | 3 | – | – |
| **Screwworm:** | | | |
| Cases in the United States | – | – | – |
| Cases in Mexico | 5 | – | – |
| Cases in Guatemala | 5 | – | – |
| Cases in Belize | – | – | – |
| Cases in El Salvador | 157 | – | – |
| Cases in Honduras | 2,961 | 300 | – |
| Cases in Nicaragua | 28,182 | 17,000 | 6,000 |
| Cases in Costa Rica | – | 50 | 4,400 |
| Cases in Panama | – | – | 300 |
| Sterile fly production - Tuxtla Gutierrez, Mexico (millions/week) | 260 | 250 | 300 |

2. Plant and animal health monitoring programs -- The plant and animal health monitoring programs are primarily cooperative efforts of the Federal and State governments, and industry. APHIS conducts programs to prevent communicable plant and animal diseases of foreign origin from entering the United States. Upon entrance into this country, the pests and diseases are rapidly diagnosed. The Agency also carries out surveys in cooperation with the States to detect harmful plant and animal pests and diseases. The programs also help determine if there is a need to establish new pest or disease eradication programs.

The statutory authority for this work is contained in 7 U.S.C. 15, 17, 30, 54, 391, 429, and 3801; 15 U.S.C. 44; 19 U.S.C. 4; 21 U.S.C. 4, 5, and 45; 46 U.S.C. 15; and 49 U.S.C. 20. Principal legislative authority for these activities is contained in the Act of May 29, 1884; Act of August 30, 1890; Act of February 2, 1903; Act of March 3, 1905; Act of June 17, 1930; Act of September 21, 1944; Act of February 28, 1947; Act of September 6, 1961; Act of July 2, 1962; and Public Law 97-46 of September 25, 1981; Act of October 14, 1982; Act of January 13, 1983; P.L. 99-198 of December 23, 1985.

-- Animal Health Monitoring and Surveillance (AHM&S) - This program, which is a cooperative effort of Federal and State governments, industry, and academia, maintains the capability for consistent disease surveillance and detection, emergency disease preparedness and response, animal health monitoring, and epidemiological delivery. APHIS protects and

monitors the health of the Nation's livestock and poultry and maintains the capability to respond promptly and effectively to new and emerging health issues. It enables APHIS to rapidly eliminate outbreaks of foreign animal diseases (FAD), to assess the risk of new and emerging domestic animal health issues, to support APHIS control and eradication programs, and to enhance the quality, safety, and competitiveness of U.S. food animal products. APHIS also conducts disease surveillance and detection for brucellosis, pseudorabies, tuberculosis, and selected domestic swine and poultry diseases. The Four Regional Emergency Animal Disease Eradication Organizations respond to FAD outbreaks in livestock and poultry populations. Disease is detected and monitored by investigating reports of suspicious cases, such as, vesicular conditions, poultry diseases, encephalitic conditions, and others. The Agency conducts inspections at slaughter establishments, livestock markets, and other concentration points. In addition, APHIS conducts epidemiological investigations to determine the extent of diseases including collection and testing of blood samples, traceback, and adjacent herd testing.

APHIS directs animal health monitoring which requires national surveys of animal populations to determine how operational practices of producers affect animal health and productivity. Data is disseminated regarding the incidence, trends, and economic impact of diseases of food animals. APHIS uses this information to improve the health of livestock and poultry through various approaches including improved management practices, specific treatments, and prevention strategies. The Agency defines and predicts the health and economic consequences of animal disease events and suggests appropriate responses. APHIS collects and analyzes epidemiological data and serves as an information distribution center for State livestock agencies, industry, and the general public.

APHIS will continue to protect the $17.5 billion poultry industry by conducting national surveillance to prevent the entry and spread of velogenic viscerotropic Newcastle disease, avian influenza, and exotic Salmonella enteritidis (Phage Type 4), and will provide technical advice to the industry on diseases of economic importance. The Agency will continue to provide a voluntary cooperative State-Federal-industry program to improve poultry and poultry products and control egg-transmitted and hatchery-disseminated diseases using research and technology. APHIS coordinated and supports the National Poultry Improvement Plan (NPIP) through laboratory support, regional and national conferences, publication of provisions, lists of participants, and statistical reports. As a result, breeding flocks and hatcheries are classified as being clean of specific poultry diseases, thereby enabling producers to purchase stocks that are tested clean of the diseases.

APHIS cooperates with the States to protect the Nation's $10 billion swine industry from the introduction and spread of harmful foreign diseases. These diseases could be devastating to swine fed untreated garbage containing meat scraps which harbor the causative agents of these diseases. The Agency conducts inspections of garbage feeding facilities, searches for illegal garbage feeders, and surveillance for African swine fever and hog cholera by testing swine slaughter serum samples from high-risk areas. These activities break the disease chain by preventing uncooked meat scraps from re-entering the food chain. The primary activity in States where garbage feeding is allowed is the enforcement of regulations requiring the heat treatment of garbage to kill harmful organisms before the garbage is fed to swine. In FY 1994, APHIS will complete risk assessment studies to evaluate the Swine Health Protection (SHP) Act. APHIS assumes Primary Enforcement

Responsibility (PER) when a State cannot adequately enforce the SHP Act or upon emergency declaration by the Secretary. The Agency can increase the frequency of inspections to at least quarterly and more often in cases where facilities are found to have chronic deficiencies. APHIS will increase search efforts for unlicensed food waste feeders by cooperating with Federal, State, and local government agencies that conduct public health inspections of food preparation establishments. In addition, the Agency will conduct several regional training courses to familiarize veterinarians and animal health technicians with the SHP Act and their responsibilities. Also, the Agency will complete work on an educational aid emphasizing the contraindication of feeding uncooked poultry to swine.

APHIS will continue protecting livestock in freed States from becoming reinfected with brucellosis. The Agency will continue providing industry with technical support to control and eradicate domestic endemic diseases of economic importance and to promote the export of animals and germplasm. In cooperation with FSIS, APHIS plans to further increase the rate of submissions of tuberculosis-like lesions found during slaughter inspections. A greater submission rate would help the program locate new herds through tracebacks. Also, the Agency will continue to conduct pseudorabies testing and surveillance to measure each State's progress through all five eradication stages. In addition, APHIS responds to numerous reports of new plant pest species in the United States each year by conducting delimiting surveys, control or eradication treatments, and by restricting the movement of commodities which could spread the pest. The Agency also conducts activities to control or eradicate several livestock diseases and parasites. Primary attention in recent years has been devoted to bovine spongiform encephalopathy (BSE), bluetongue, and several equine diseases.

APHIS will continue to provide industry with technical support to control and eradicate domestic endemic diseases of economic importance and to promote the export of animals and germplasm. FY 1994 plans include: (1) analyzing, interpreting, and communicating National Animal Health Monitoring System (NAHMS) beef cow/calf health and productivity audit results from 18 States with 70 percent of the U.S. beef cow/calf population; (2) assessing and communicating how preharvest cattle management practices affect food safety in general and specifically E. coli 0157:H7 in groundbeef; (3) implementing the first national feedlot cattle monitoring in 13 States; (4) adding value to existing monitoring of chicken and turkey breeders through NPIP data by analysis and graphic interpretation of disease trends; (5) disseminating NAHMS dairy monitoring results, including information on Cryptosporidium, E.coli, and salmonella, and completing analyses under an E. coli follow-up study to estimate the prevalence of this pathogen on infected farms in pre-weaned and recently weaned heifers; (6) expanding disease surveillance capabilities of the Veterinary Diagnostic Laboratory Reporting System by interpreting and reporting diagnostic data submitted by 27 State laboratories from the 25 States; (7) designing the second national swine monitoring project, and the first national sheep monitoring project, both scheduled to be implemented in FY 1995; and (8) continuing ongoing monitoring and disease surveillance for swine, dairy cow/calf, beef cow/calf, feedlot cattle, and breeder and layer chickens.

-- Animal and plant health regulatory enforcement - The goal of this program is to provide regulatory support to APHIS programs, and to provide technical advice and assistance to program officials in the interpretation and application of the Federal laws and regulations coming under the jurisdiction of the Agency. The Agency conducts

preliminary investigations to determine if Federal laws or regulations have been violated. APHIS officials review the investigations, and if necessary, submit cases to the Office of the General Counsel for criminal or civil prosecution. The Agency continues to monitor the status of cases, helps prepare witness lists, recommends professional witnesses, and serves as trial assistants to the Department attorneys.

-- Fruit Fly Detection - The objective of this program is to provide for early detection of exotic fruit fly introductions and to prevent sustained infestations from occurring in the continental United States, Virgin Islands, and Puerto Rico. The program provides traps, lures, and equipment, as well as personnel to install and service traps for early detection of Medfly, MFF, Oriental fruit fly, melon fly, guava fruit fly, Queensland fruit fly, peach fruit fly, and other exotic fruit flies. Early detection of infestations can substantially reduce emergency funding required for eradicating larger infestations.

-- Pest Detection - The pest detection program has three main functions. The first of these is to rapidly discover foreign plant pests before they become established in agricultural areas, thereby reducing pest control costs and preventing widespread agricultural damage. The program's second function is to provide information supporting export of U.S. agricultural products. The third function is to provide information supporting the management of pests.

APHIS works in cooperation with the States in a project called the Cooperative Agricultural Pest Survey (CAPS). As part of this program, the States enter the results of plant pest surveys into a national database known as the National Agricultural Pest Information System (NAPIS). Updated information entered by the States may be quickly retrieved by State Departments of Agriculture, State Land Grant Universities, and Federal Agencies. NAPIS data can support statements to foreign officials about the pest-free status of U.S. agricultural production areas and also help determine the need and effectiveness of pest eradication action programs.

The levels of plant and animal health monitoring activities are shown by the selected examples that follow:

| Program | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| **Animal health monitoring and surveillance:** | | | |
| States participating in NAHMS | 37 | 39 | 42 |
| Percent of U.S. livestock covered by NAHMS: | | | |
| Dairy | 94 | 96 | 98 |
| Beef-cow/calf | 82 | 88 | 96 |
| Swine | 96 | 98 | 99 |
| Sheep | 78 | 86 | 98 |
| Feedlot cattle | 93 | 98 | 99 |
| Breeder chickens/turkeys, based on NPIP data | – | 99 | 99 |
| Number of major livestock/ poultry commodities monitored | 5 | 7 | 7 |
| Producer voluntary participation rates in NAHMS national surveys | 70 | 76 | 80 |
| Veterinary Diagnostic Laboratory Reporting System: | | | |
| Number of states participating | 22 | 25 | 27 |
| Number of laboratories submitting data | 25 | 28 | 31 |
| Diseases and disease agents tracked | 26 | 13 | 15 |
| Number of States classified as U.S. Pullorum Typhoid Clean | 40 | 41 | 40 |
| Number of egg and meat-type breeding flocks in plan | 3,831 | 3,860 | 3,831 |
| Number of water fowl, exhibition poultry, and game bird breeding flocks in plan | 4,443 | 4,443 | 4,443 |
| Number of States classified as U.S. Mycoplasma Gallisepticum Clean (turkeys) | 12 | 13 | 12 |
| Turkey breeding flocks in the plan | 681 | 690 | 681 |
| Number of garbage inspections | 40,000 | 39,500 | 39,000 |
| Number of violations of the SHP Act | 575 | 515 | 500 |
| Searches for unlicensed garbage feeders | 76,582 | 75,817 | 75,000 |
| Exotic diseases and parasites: | | | |
| Investigations of suspicious cases | 299 | 300 | 300 |
| Exotic Newcastle disease (VVND) outbreaks | – | – | – |
| Compliance: | | | |
| Inspections conducted at livestock markets and at other concentration points | 13,859 | 15,337 | 15,337 |
| Inspections conducted at slaughter establishments | 3,580 | 4,855 | 4,855 |
| **Animal and plant health regulatory enforcement:** | | | |
| Agricultural quarantine inspection: | | | |
| Field investigations | 339 | 350 | 400 |
| Formal cases | 980 | 1,000 | 1,000 |
| Warning notices | 46 | 50 | 50 |
| Stipulations | 544 | 550 | 600 |
| Cases sent to OGC | 190 | 200 | 200 |
| Animal health monitoring and surveillance: | | | |
| Field investigations | 1,432 | 1,400 | 1,200 |
| Formal cases | 762 | 750 | 700 |
| Warning notices | 296 | 271 | 250 |
| Stipulations | 44 | 60 | 75 |
| Cases sent to OGC | 66 | 65 | 60 |
| Animal welfare: | | | |
| Field investigations | 672 | 700 | 750 |
| Formal cases | 921 | 925 | 950 |
| Warning notices | 597 | 600 | 600 |
| Stipulations | 141 | 150 | 150 |
| Cases sent to OGC | 69 | 75 | 75 |
| Horse protection: | | | |
| Field investigations | 87 | 50 | 50 |
| Formal cases | 26 | 20 | 20 |
| Warning notices | – | – | – |
| Stipulations | – | – | – |
| Cases sent to OGC | 18 | 20 | 20 |
| Veterinary biologics: | | | |
| Field investigations | 25 | 25 | 25 |
| Formal cases | 8 | 10 | 10 |
| Warning notices | 1 | 5 | 5 |
| Stipulations | – | – | – |
| Cases sent to OGC | – | 2 | 5 |

| Program | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| **Fruit fly detection:** | | | |
| Traps set: | | | |
| Mediterranean | 41,000 | 42,500 | 42,600 |
| Melon | 13,500 | 13,900 | 13,900 |
| Oriental | 20,200 | 20,800 | 20,800 |
| Mexican | 18,700 | 19,500 | 20,300 |
| Total | 93,400 | 96,700 | 97,600 |
| **Plant pest detection:** | | | |
| Special area wide pest reporting projects | 10 | 6 | 4 |
| Pest maps developed | 1,000 | 1,000 | 1,000 |
| Biocontrol projects supported | 5 | 5 | 6 |
| Exotic species surveyed | 20 | 20 | 20 |
| Species distributions recorded | 10 | 10 | 10 |

3. Pest and disease management programs -- In cooperation with the States, APHIS conducts programs to detect, prevent, and eradicate pests and diseases which are harmful to agriculture. The Agency monitors and regulates interstate shipments of plants, livestock, and related materials to prevent the spread of disease and the distribution of impure, unsafe, and nonefficacious materials and products. Through the Animal Damage Control program, APHIS protects agriculture from detrimental animal predators through identification, demonstration, and application of the most appropriate methods of control.

The statutory authority for this work is contained in 7 U.S.C. 2.17, 2.51, 7-7b, 8, 11, 15, 17, 30, 54, 55, 371.2, 429, and 3801-3813; 15 U.S.C. 44; 19 U.S.C. 4; 21 U.S.C. 4, 5, and 45, 111, 114, 117, 120, 122-126, 130, 134; 46 U.S.C. 15; and 49 U.S.C. 20. Principal legislative authority for these activities is contained in the Animal Industry Act of May 29, 1884; Act of August 30, 1890; Act of February 2, 1903; Act of 1903, Act of March 3, 1905; Tariff Act of June 17, 1930; the Animal Damage Control Act of 1931; Act of September 21, 1944; Organic Act of 1944, as amended by P.L. 94-231, enacted March 15, 1976; Act of February 28, 1947; Act of September 6, 1961; Act of July 2, 1962; P.L. 92-629 of January 3, 1975; the Swine Health Protection Act of October 17, 1980; Public Law 97-46 of September 25, 1981; Act of October 14, 1982; Act of January 13, 1983; P.L. 99-198 of December 23, 1985; and the Food, Agriculture, Conservation, and Trade Act (Farm Bill) of 1990. The activities carried out are as follows:

-- Animal Damage Control (ADC) - The ADC program was established in 1885 as the Bureau of Biological Survey under the U.S. Department of Agriculture (USDA). In 1939, the program was transferred to the U.S. Department of the Interior, Fish and Wildlife Service. Pursuant to P.L. 99-190; H.J. Res. 465, 99 Cong. 1st Sess. FY 1985, ADC was transferred back to USDA and is now administered by APHIS. The goal of the ADC program is to help solve problems that are created when species of wildlife cause damage to agricultural, industrial, or natural resources; or present a threat to public health and safety. Under the authority of the Animal Damage Control Act, the program conducts research and carries out cooperative activities with other Federal, State or local agencies, organizations, or private individuals. The program helps protect agricultural and natural resources, property, or endangered species and prevents wildlife hazards at airports or other locations where there is a need to safeguard public health.

-- Aquaculture - The proposed program's goal is to assist the aquaculture industry in controlling aquatic diseases and pests and to facilitate commerce. Aquaculture is currently the most rapidly growing segment of agriculture. Depredation from large bird populations damage the aquaculture industry's attempt to create a viable and economically sound industry.

The initial activities would include providing technical assistance to producers, developing a cooperatively funded program for operational assistance to producers, coordinating depredation permits with the Fish and Wildlife Service and the State wildlife agencies, working with the Fish and Wildlife Service and the State Wildlife agencies to develop bird damage management plans, establishing liaison with wild fishery interests, and evaluating current control efforts with a view toward development of improved control methods in the future.

-- Biocontrol - This program's goal is to implement biological control programs using parasitoids, predators, and pathogens to control agricultural pests of economic importance in a cooperative effort with Federal and State agencies. The program carries out the importation, quarantine screening, rearing, release, and evaluation of beneficial organisms to control pests of economic importance. Biological control is an alternative to using traditional chemicals for controlling plant pests. Public environmental concerns such as water and air quality, the potential carcinogenic effects of certain pesticides, and increasing pest resistance to pesticides have made it imperative for APHIS to continue to develop and improve upon biological control methods. APHIS works with international organizations and other Federal agencies, the States, and universities in conducting a number of biological control projects including leafy spurge, diffuse and spotted knapweed, Colorado potato beetle, Russian wheat aphid, Sweet potato whitefly, Euonymus scale, Cereal leaf beetle, and the Brown citrus aphid.

-- Boll weevil - The boll weevil program consists of two regional eradication programs and one containment program. These programs are cooperative efforts, of which APHIS pays 30 percent of program costs and cooperators pay 70 percent.

- High Plains Control - This program was established in 1963 to contain the spread of the boll weevil and prevent it from infesting over 4 million acres of cotton in west Texas and New Mexico.

- Southeast Eradication - The program has eradicated the boll weevil from Virginia, North Carolina, South Carolina, Georgia, and Florida, and portions of southern Alabama. Post-eradication activities continue in these areas to prevent reinfestation. In response to grower interest, APHIS plans to expand the eradication program into the remaining areas of Alabama, eastern Mississippi, and southern Tennessee. The program calls for eradication of the boll weevil from all cotton growing areas of the United States by the year 2015.

- Southwest Eradication - The program has eradicated the boll weevil from Arizona, southern California, and northwestern Mexico. Two areas in northern Mexico, Sonoita and Caborca, are currently under treatment. Eradication in northern Mexico should be confirmed within the next 3 years, reducing the risk of reinfestation in Arizona.

-- Brucellosis - The objective of the State-Federal Cooperative Brucellosis Program is to eradicate Brucella abortus from the bovine population and Brucella suis from the swine population of the United States.

For the last 4 years, the bovine program has operated under the industry supported Rapid Completion Plan (RCP). This plan would eliminate brucellosis from the United States by the end of FY 1998 at the current funding level. The RCP places particular emphasis on the depopulation or whole herd vaccination of affected herds and on close adherence to all provisions of the Brucellosis Uniform Methods and

Rules. Major program tools include calfhood vaccination, data management, and the elimination of infection from herds by depopulation.

Program plans in FY 1994 include qualifying the remaining Class B State, Texas, for advancement to Class A status, and qualifying four Class A States, California, Tennessee, Alabama, and Iowa, to Class Free status.

-- Cattle Ticks - The cattle tick program is a cooperative Federal-State-industry effort to prevent the re-establishment of the cattle fever tick, Boophilus annulatus and B. microplus in the United States; to maintain a permanent buffer zone along the Texas-Mexico border; and to eradicate the tropical bont tick, Amblyomma variegatum and the cattle fever tick, B. microplus, from Puerto Rico and the U.S. Virgin Islands.

In the continental United States, the program is concentrated along the Texas-Mexico border, where the Rio Grande river serves as a natural barrier. Animal health inspectors conduct systematic patrols and inspections on horseback, in the permanent quarantine zone along the border. In addition, all livestock crossing the border and entering or leaving the quarantine zone are examined and treated for ticks to eliminate the risk of cattle ticks becoming established in the United States.

The Puerto Rico program involves the systematic treatment of all tick-infested premises with an acaricide. After the treatment regimen is completed, livestock on the premises are inspected for ticks to ensure that they remain tick-free.

Program objectives for FY 1994 include maintaining a quarantine zone, systematic patrols, and inspections along the Texas-Mexico border; and continuing the tick eradication program in Puerto Rico.

-- Golden Nematode - The program regulates golden nematode infested crops in the State of New York and prevents the spread of the nematode to other potato producing States. To accomplish its goal, APHIS cooperates with the New York State Department of Agriculture, the Agricultural Research Service, the Extension Service, Cornell University, and the New York Seed Improvement Cooperative. The program enforces regulations and sanitary requirements, supports research to develop new resistant potato varieties, and encourages grower acceptance of existing resistant varieties.

-- Grasshopper and Mormon cricket - Preventing grasshoppers and Mormon crickets from causing significant damage to U.S. rangeland and cropland is this program's goal. APHIS accomplishes this goal by conducting surveys to determine the extent of grasshopper and Mormon cricket populations and by conducting control activities on Federal, State, and privately owned rangeland. A limited amount of cropland may be included in a control program, when it is contained within a block of rangeland. Control activities include both pesticide application and the introduction of biological control agents. A no-year fund was established in 1986 to finance control activities on rangeland and cropland. A supplemental appropriation was made in FY 1990 to fund control activities on land in the conservation reserve program (CRP).

APHIS began a grasshopper Integrated Pest Management (IPM) project in FY 1987. The project was designed to find long-term environmentally acceptable solutions to grasshopper infestations. The transfer of the technology to field activities is continuing.

-- Gypsy moth - The goal of the gypsy moth program is to prevent the artificial spread of the pest from the generally infested area. The currently infested area includes all or part of 15 eastern States, ranging from Maine to North Carolina, and west to Michigan. The program's main functions are regulatory, survey, and control activities. Regulatory activities conducted within the generally infested area include the inspection, treatment, and certification of regulated articles for movement to non-infested areas. Survey activities are conducted in cooperation with the States to detect and delimit any isolated pest populations outside of the generally infested area. Control activities are conducted in cooperation with the States and the Forest Service to eliminate identified isolated infestations. APHIS is responsible for all infestations not exceeding 640 acres that occur on State or private land.

-- Honey bee pests - The program's objectives are to promote techniques that prevent Africanization of managed European honey bee colonies, prevent the introduction of new exotic honey bee pests, and assist the States with monitoring the migration of the Africanized honey bee (AHB). Because the AHB is more defensive and less productive than European bees, it poses the most immediate danger to the beekeeping industry. During 1990, Africanized honey bees initially migrated from Mexico to south Texas. In cooperation with the States and the beekeeping industry, APHIS monitors swarm trap lines in southern States to track the movement of AHB. The Agency supports the national honey bee certification plan developed by the National Association of State Departments of Agriculture (NASDA), which requires certification that honey bees are free from the AHB strain. In addition, the Agency has a representative on the AHB Technical Working Group. APHIS also operates the National Agricultural Pest Information System (NAPIS) data base to maintain AHB survey records, operates AHB traps at ports of entry, assists the States in setting up identification laboratories, loans identification lenses for the laboratories, and supplies traps and lures to States through cooperative agreements.

-- Imported fire ant (IFA) - The IFA program is established to control existing infestations and reduce further spread of IFA. Since its introduction into the United States in 1918, IFA has spread to 11 Southern States and Puerto Rico. In the late 1950's, the Department began working with the infested States to control IFA. At that time, the Department imposed a Federal quarantine and developed a cooperative control program designed to limit the ant's spread. When surveys indicate that IFA have been intercepted, new counties are included in IFA regulatory maps which are distributed to the State regulatory officials. Currently, APHIS is cooperating with the University of Arkansas to develop methods and demonstration projects for imported fire ant control. APHIS also cooperates with infested States to prevent further spread by regulating certain articles like nursery stock and soil moving equipment. APHIS works with the Agricultural Research Service to screen and develop promising new chemicals and biocontrol agents.

-- Miscellaneous plant diseases - APHIS responds to numerous reports of new plant pest species in the United States each year. The miscellaneous plant pest program provides the mechanisms for response to those pests not covered under a specific line-item. Program activities include delimiting surveys, control or eradication treatments, and restricting the movement of commodities which could spread the pest. In the international arena, APHIS facilitates surveys for several agricultural pests by offering technical advice to countries throughout the Caribbean, Central America, and Mexico.

-- Noxious Weeds - APHIS' responsibilities under the Federal Noxious Weeds Act of 1974, are to prevent the entry of noxious weeds into the United States from foreign countries, detect and delimit infestations of those weeds that are already in the United States, and to eradicate infestations where feasible. The noxious weeds program is performed in cooperation with State and local agencies. Program methods include port-of-entry inspections, surveys to determine the scope of infestations, eradication feasibility studies, and other control and eradication projects. The program has conducted survey and eradication feasibility studies on crupina in Idaho, goatsrue in Utah, itchgrass in Louisiana, and hydrilla in California. In recent years control efforts have been directed at common crupina, goatsrue, hydrilla, Salsola vermiculata, Orobanche ramosa, Orobanche minor, and Cuscuta japonica.

-- Pink bollworm - APHIS works with State agencies, grower organizations, and cotton producers to prevent pink bollworm from spreading to non-infested areas. The pink bollworm is a serious pest of cotton, but can reproduce on several other plant species in the United States. The pest is fairly widespread in the Cotton Belt from southern California through Texas, with limited areas of infestation occurring in Arkansas and Louisiana. In recent years, moths have been caught in Mississippi, Missouri, and Tennessee. Program activities include quarantine enforcement, trapping, methods development, and operation of a sterile-moth rearing facility. Pink bollworm moths are raised, sterilized, and released in the San Joaquin Valley, California, to mate with native moths that fly in from infested areas in the south. This sterile union prevents the infestation of over 1 million acres of cotton across the valley.

-- Pre-Harvest Pathogen Reduction - APHIS will assist in providing the United States with a safer and more wholesome animal food product through optimum food safety and animal health. This goal will be accomplished by improving animal health on the farm and reducing the risk of foodborne pathogens of animal origin from reaching the general public. By achieving a higher food safety standard in this country, U.S. producers will have a definite advantage in securing competitive international markets.

-- Pseudorabies - APHIS participates in a cooperative Federal-State-Industry program to eradicate pseudorabies. This herpes virus causes severe economic losses in swine due to reproductive problems including abortion, stillbirth, death in newborn pigs, pneumonia in pigs raised for market, and fatality in all other domestic livestock. The program began in January 1989 and will require an estimated 10 years to complete. APHIS provides national program coordination, technical advice, data management, and public information.

The pseudorabies eradication program has been an ideal model of producer and government teamwork. The program guidelines are called the Pseudorabies Program Standards and were developed by APHIS, State, and industry leaders. Program participation requires the formation of a State pseudorabies committee, which consists of swine producers, animal scientists, veterinarians, State and Federal regulatory officials, and other swine industry representatives. Participation also requires incorporating the standards into the State's regulations. The educational efforts employed to eradicate pseudorabies have improved the overall herd health management of swine farms. Pseudorabies-free high-health status swine are more profitable for swine producers. Animals or pork products from such farms are more acceptable to meat processors and growing international markets.

All 50 States, Puerto Rico, and the Virgin Islands participate in and receive Federal funds for this industry-initiated program. Program progress is measured by advancement through five stages, with Stage I being the initial stage and Stage V being the final stage. Entry into Stage V requires having no infected herds and testing 10 percent of the breeding swine in the State annually for the previous 2 years. Once Stage V is achieved, the surveillance can be reduced to five percent of the State's breeding swine, thereby reducing program costs. To qualify for Stage IV status, a State must have no known pseudorabies infection. Mandatory cleanup of infected herds is required to qualify for Stage III. This may involve a combination of depopulation, vaccination, test and removal of reactor animals, and offspring separation. Before entering Stage III, a State must also have one percent or less of its swine herds infected with pseudorabies. Stage II is the control phase in which significant progress must be made to reduce the number of infected herds to one percent or less. In addition, any swine herds within a 1.5 mile radius of an infected herd must be monitored and epidemiological tracing of swine movements to and from infected herds must be done. Stage I requires that the State pseudorabies committee formulate plans for a reliable determination of prevalence and seek the regulatory/legislative authority to conduct an effective control/eradication program.

-- Salmonella enteritidis (SE) - SE continues to be an important poultry disease and a serious public health concern. In recent years, it has been found in a considerable number of domestic commercial egg-laying chicken flocks and has contaminated commercial table eggs, causing human illness and deaths. The primary goal of the SE traceback program is to reduce the spread of the disease as well as the human illnesses and deaths caused by egg-related SE. Since the program began in 1990, 248 SE outbreaks in humans have been reported, involving at least 7,716 cases and 12 deaths. Of this total, 78 were egg-related. Tracebacks from these outbreaks led to 34 different egg-layer flocks, including some of the largest in the United States. These flocks were located in the following States: 17 in Pennsylvania, 4 in Indiana, 2 in Maryland, 2 in New York, and 1 each in Colorado, Delaware, New Jersey, Kansas, Minnesota, Texas, Alaska, Vermont, and Michigan. As of January 1, 1994, only one of these flocks is still under restriction; this flock is in Indiana. The remaining flocks have either been released from restriction or depopulated. Eggs from the positive flocks were prevented from being sold interstate as table eggs, and instead were sent to pasteurization plants. Approximately 7 million laying hens were involved and approximately 2.150 billion eggs have been kept off the table egg market.

APHIS will continue the traceback program in FY 1994. In addition, the Agency is conducting a large pilot program in Pennsylvania to better determine how to prevent and control SE in poultry flocks. The program has monitored or is now monitoring 125 flocks with a total population of 7.5 million laying hens. As a direct result of the Pilot Project, APHIS has begun an Egg Quality Assurance program, which should cover approximately 15 million egg layers in that State.

There are also many efforts by other agencies and groups to lower SE incidence. Egg producers have adopted a wide range of measures to reduce the risk of infecting their flocks and contaminating eggs with SE. In FY 1990, the Food and Drug Administration added eggs to the "hazardous foods" list and recommended a 45 degree F. refrigeration requirement and the use of pasteurized eggs in institutions. The egg industry is recommending more stringent refrigeration requirements for eggs throughout the production process. Through the combined efforts of APHIS, egg producers, restaurants, consumers, industry

representatives and other government agencies, it should be possible to decrease SE outbreaks to 25 per year by the year 2000, from the current annual level of approximately 60.

-- Scrapie - The goal of the scrapie program is to reduce the incidence and control the spread of scrapie, a transmissible disease of sheep and goats that causes a slowly progressive degeneration of the central nervous system. This disease is always fatal and no diagnostic test is available to identify affected animals before death. To reduce the incidence and control the spread of scrapie, APHIS established a voluntary scrapie flock certification program (VSFCP) in FY 1993 which calls for the gradual development of flocks that are certified to be free of scrapie. Participating flocks progress through four classes over time, with each class representing a lower risk that the flock is infected with scrapie. A flock must spend a minimum amount of time in a given class, and each class has specific requirements for flock record-keeping, new animal purchases, animal identification, actions upon animal deaths, and submission of diagnostic samples. The program was developed through the process of negotiated rulemaking, which was a cooperative effort involving producers, accredited veterinarians, allied industry representatives, State animal health officials, and APHIS. In FY 1994, APHIS will continue to conduct activities associated with the VSFCP and will intensify efforts to encourage producer participation. The Agency also continues to support cooperative research to develop a live animal diagnostic test and to determine if embryo transfer is effective in preventing scrapie transmission.

-- Tropical Bont Tick (TBT) - The new TBT program will be a cooperative effort with the Food and Agriculture Organization of the United Nations (FAO) European Community, Caribbean governments, and other participants such as APHIS. The objective of the program is to eradicate the TBT from the Caribbean where it is currently established on 14 islands and reported from 19, before it can spread to mainland areas including Venezuela, Florida, and the Yucatan Peninsula. As the program progresses, APHIS will collaborate with the Food and Agriculture Organization of the United Nations, the Inter-American Institute for Cooperation on Agriculture, and the Economic Community of Caribbean countries, as part of regional efforts aimed at controlling the spread of the tick and eradicating it from selected islands.

The TBT is a vector of a causative agent of heartwater disease in ruminants and is also associated with increased incidence of bacterial skin infections which can lead to other infections and diseases. The spread of TBT throughout its potential range in the Western Hemisphere would most severely affect dairy farms, costing producers up to $762 million annually. TBT has a low probability of reintroduction into the Caribbean region once it is eradicated, and eradication of the TBT while it is restricted to this area would provide the greatest level of security to the rest of the Americas.

-- Tuberculosis - The goal of this program is the eradication of bovine tuberculosis (TB) from the United States. Primary program tools include the traceback and testing of cattle herds from which infected animals were identified at slaughter, testing of suspect cattle to identify positive cases, and full epidemiological investigation to identify sources of infection and possible exposure to other herds. Sources of infection and exposure can be cattle, bison, elk, deer, and other warm-blooded mammals. Restrictions are placed on the interstate movement of cattle that are reactors, exposed, or suspects. Limited indemnities are provided to owners of TB-infected animals destroyed in connection with the program.

During FY 1994, the Agency, with the cooperation of FSIS, plans to further increase the rate of submissions of TB-like lesions found during inspections at slaughter. A greater submission rate would aid in the goal of locating new herd tracebacks. Uniform Methods and Rules will go into effect for TB in deer and elk to include using slaughter surveillance methods to identify TB in deer and elk herds. The Agency will explore ways to reduce the importation of Mexican steers with TB into the United States through improved communication with Mexico regarding the control and eradication of TB in animals undergoing international movement.

-- Witchweed - The program's goal is to prevent the spread of witchweed to host crop producing areas of North Carolina and South Carolina and move towards eventual eradication of this pest. The current levels of infestation will allow APHIS to transfer the eradication responsibilities to the States by FY 1995. Afterwards, the Agency involvement will be limited to providing financial and technological support to the States. This will allow the States to conduct post-eradication surveys and spot-treat new infestations when detected. If allowed to spread into the corn belt, witchweed would cause an estimated 10-percent yield loss of the $20 billion corn, sorghum, and sugarcane industries in the United States.

The levels of pest and disease management activities are shown by the selected examples that follow:

| Program | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| **ADC Operations:** | | | |
| Number of livestock protected: | | | |
| Sheep and goats | 8,517,100 | 8,600,000 | 8,400,000 |
| Cattle | 11,491,000 | 11,500,000 | 11,450,000 |
| Crop acres protected: | | | |
| Small grains | 1,380,000 | 1,400,000 | 1,350,000 |
| Sunflowers | 325,000 | 335,500 | 340,000 |
| Fruit and nut orchards | 179,000 | 178,000 | 179,000 |
| Hay, alfalfa, and pasture | 490,000 | 495,000 | 500,000 |
| Citrus | 47,500 | 48,000 | 49,000 |
| Corn | 157,500 | 159,000 | 160,000 |
| Soybeans | 19,500 | 21,500 | 22,500 |
| Vineyards | 140,000 | 142,000 | 145,000 |
| Range and forest acres protected: | | | |
| Range | 8,120,000 | 8,500,000 | 8,000,000 |
| Forest | 3,150,000 | 3,250,000 | 3,100,000 |
| Health and safety accomplishments: | | | |
| Airports (prevent bird strikes) | 380 | 385 | 375 |
| Rabies projects | 70 | 72 | 65 |
| Plague surveillance projects | 270 | 270 | 260 |
| Number of requests for assistance: | | | |
| Agriculture | 109,100 | 110,000 | 111,000 |
| Urban interests | 87,500 | 90,000 | 92,000 |
| Human health and safety | 21,700 | 22,000 | 22,500 |
| Industrial facilities | 1,432 | 1,500 | 1,500 |
| Natural resources | 1,225 | 1,280 | 1,285 |
| **Biological Control:** | | | |
| Natural enemies released (thousands): | | | |
| European corn borer | 1,200 | – | – |
| Colorado potato beetle | 670 | 1,500 | 3,000 |
| Diffuse and spotted knapweed | 76 | 90 | 68 |
| Leafy spurge | 275 | 300 | 400 |
| Russian wheat aphid | 3,000 | 2,700 | 2,500 |
| Sweetpotato whitefly | 3,466 | 10,000 | 10,000 |
| Euonymus scale | 36 | 60 | 75 |
| Cereal leaf beetle | 24 | 35 | 50 |

| Program | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| **Boll Weevil:** | | | |
| Weevil-free acres (thousands): | | | |
| High Plains | 2,500 | 2,500 | 2,500 |
| SE eradication | 430 | 1,010 | 1,100 |
| SW eradication | 1,250 | 1,650 | 1,650 |
| Acres under treatment (thousands): | | | |
| High Plains | – | – | 500 |
| SE Eradication | 580 | 410 | 934 |
| SW Eradication | 400 | 25 | 25 |
| **Brucellosis:** | | | |
| Cattle: | | | |
| Class Free status States* | 35 | 39 | 43 |
| Class A status States | 17 | 14 | 10 |
| Class B status States | 1 | – | – |
| Total number of quarantined herds at the end-of-fiscal year | 283 | 212 | 159 |
| * Includes Puerto Rico, U.S. Virgin Islands, and D.C. | | | |
| **Cattle ticks:** | | | |
| Infested premises under treatment outside of quarantine zone at end of FY (Texas) | 3 | 4 | 4 |
| Infested premises under treatment inside quarantine zone at end of FY (Texas) | 7 | 9 | 16 |
| Premises freed of ticks (cumulative) Puerto Rico (bovine only) | 12,015 | 14,000 | 16,000 |
| **Grasshopper and Mormon cricket:** | | | |
| Cumulative acres treated (thousands) | 85 | 1,000 | 2,000 |
| Acres treated in CRP lands (thousands) | 1 | 1 | 1 |
| Economically infested acres from survey (thousands) | 24,766 | 15,944 | 28,000 |
| **Gypsy moth:** | | | |
| Acres treated (funded through contingency funds) | 51,037 | 50,000 | 50,000 |
| **Honeybee pests:** | | | |
| Swarm traps at ports-of-entry | 1,442 | 1,442 | 1,500* |
| Swarm traps operated by APHIS in monitoring spread of Africanized honeybee | 1,480 | – | – |
| * Funded through miscellaneous plant pests in FY 1995. | | | |
| **Imported fire ant:** | | | |
| Regulatory violations (State and Federal) | 34 | 40 | – |
| Regulatory inspections (State and Federal) | 28,000 | 25,000 | – |
| **Noxious weed program:** | | | |
| Acres treated for common crupina in Oregon | 2,000 | 2,000 | 2,000 |
| Acres treated for common crupina in Washington | 480 | 480 | 480 |
| Acres treated for goatsrue in Utah | 39,000 | 39,000 | 39,000 |
| Acres treated for Orobanche ramosa | 390 | 350 | 335 |
| **Pink bollworm:** | | | |
| Sterile insects reared (millions) | 834 | 1,222 | 1,222 |
| Sterile moths released (millions): | | | |
| San Joaquin Valley | 834 | 800 | 800 |
| Imperial/Coachella Valley (demonstration project) | – | 422 | 422 |

| Program | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| **Pseudorabies:** | | | |
| States enrolled in the National Pseudorabies Eradication Program: | | | |
| Stage I States | 4 | – | – |
| Stage II States | 9 | 3 | 6 |
| Stage II/III States | 5 | 5 | 5 |
| Stage III States | 19 | 19 | 15 |
| Stage IV States | 6 | 10 | 25 |
| Stage V States | 9 | 15 | 4,000 |
| Known infected herds | 6,600 | 5,500 | 700,000 |
| Market/Slaughter samples tested | 600,000 | 650,000 | 20 |
| States that advanced to next stage | 17 | 18 | 300,000 |
| Hogs infected during the year | 989,875 | 600,000 | 1,000,000 |
| Hogs currently infected | 3,843,830 | 2,500,000 | 800 |
| Herds infected during the year | 1,740 | 1,200 | 4,000 |
| Herds currently infected | 6,754 | 5,500 | 3,000 |
| Herds cleaned up during the year | 2,796 | 3,000 | 4,000 |
| Herds on clean-up plans | 6,091 | 5,500 | |
| **Salmonella enteritidis:** | | | |
| Flocks enrolled in voluntary SE control program | 60 | 125 | 250 |
| States that have adopted voluntary SE control programs | 3 | 3 | 5 |
| Human SE outbreaks per year | 57 | 40 | 20 |
| Number of these cases that were egg-related | 18 | 12 | 10 |
| Human SE cases per year resulting from outbreaks | 2,500 | 2,000 | 1,500 |
| Egg-layer flocks implicated in the outbreaks | 3 | 2 | 2 |
| Egg-layer flocks under restriction at end-of-year | 1 | 1 | 1 |
| **Scrapie:** | | | |
| Total number of infected flocks, includes new and existing | 139 | 85 | 85 |
| Number of new infected flocks found | 110 | 55 | 55 |
| Number of source flocks | 8 | 10 | 10 |
| Flocks participating in flock certification program | 28 | 60 | 150 |
| Flocks eligible to advance to higher certification levels | – | 28 | 32 |
| Flocks that advanced to higher certification levels | – | 28 | 32 |
| Flocks in Class C (1st year) | 28 | 32 | 90 |
| Flocks in Class B (2nd year) | – | 28 | 60 |
| Flocks in Class A (2nd year) | – | – | – |
| Flocks certified | – | – | – |
| **Tuberculosis:** | | | |
| States accredited-free status | 42 | 43 | 44 |
| States modified-accredited status | 10 | 9 | 8 |
| Herds located | 3 | 8 | 8 |
| Herds depopulated | 2 | 6 | 6 |
| **Witchweed:** | | | |
| Acres infested at end-of-year | 38,000 | 25,600 | 15,000 |
| Acres released from quarantine | 10,000 | 12,400 | 10,600 |
| Acres previously released from quarantine | 387,600 | 397,600 | 410,000 |

4. Animal care programs -- APHIS is mandated by Congress to enforce the Animal Welfare Act (AWA) of 1966 and the Horse Protection Act (HPA) of 1970. The statutory authority for this work is contained in the respective Acts and the corresponding amendments. The program activities contain the following principles:

-- Animal Welfare - Under the Animal Welfare Act (AWA), APHIS is responsible for developing regulations implementing its provisions and ensuring compliance with these regulations by the regulated entities.

The AWA stipulates that warm-blooded animals utilized for research or exhibition, or raised for the wholesale pet trade, receive humane care, treatment, and handling. The transportation of regulated animals in commerce is also covered by the AWA. To prevent the utilization of stolen pets for research purposes the AWA requires that records of acquisition and disposition be maintained for dogs and cats raised or utilized under the AWA. The activities of the program are accomplished via a licensing and/or registration requirement combined with an inspection process. To ensure compliance, APHIS is required by law to conduct annual inspections of all research facilities and reinspect noncompliant areas until these areas achieve compliance.

With the enactment of an amendment to the AWA that called for a certification to accompany random-source dogs and cats sold to dealers by humane shelters, certain pounds, and research facilities, APHIS published final regulations on July 22, 1993, which addressed the requirements. The amendment requires that regulated facilities comply with holding periods. This legislation was passed by Congress to prohibit the use of stolen pets in research and to provide owners the opportunity to locate their animals. The final rule became effective August 23, 1993.

As a result of an Office of the Inspector General review, APHIS implemented action for the improved welfare of dogs in the pet industry. This includes changes in policy, management, enforcement, the control of unlicensed dealers, and other areas for a better enforcement of the animal welfare standards. APHIS also recommended legislative changes to strengthen and improve its authority with regard to stolen dogs.

-- Horse Protection - The Department is committed to the elimination of the inhumane practice of soring horses. The Horse Protection Act (HPA) prohibits showing, selling, transporting, or exhibiting sored horses. Soring is inflicted through the use of action devices, chemicals, or a combination thereof applied to a horse's lower (pastern) limbs in order to accentuate an unnaturally high stepping gait.

The Department certifies horse industry organizations that meet regulatory criteria to inspect horses at shows, sales, auctions, and exhibitions. APHIS monitors compliance of the program by making unannounced inspections and evaluating the Designated Qualified Persons (DQP's) that inspect horses on behalf of the certified organizations.

During FY 1993, APHIS emphasized cooperative enforcement techniques and communication with various horse industry organizations. In FY 1994, APHIS intends to strengthen its professional relationships with industry inspectors and provide continuing educational support.

The levels of animal care activities are shown by the selected examples that follow:

| Program | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| **Animal welfare:** | | | |
| Complaints investigated and resolved | 689 | 647 | 711 |
| Number of inspections conducted at licensees and/or registrants | 19,861 | 15,790 | 17,470 |
| Number of violations processed | 980 | 433 | 459 |
| Dealer inspections | 6,280 | 7,000 | 7,200 |
| Research inspections | 4,355 | 4,500 | 4,650 |
| Exhibitor inspections | 2,944 | 2,750 | 2,900 |
| Intransit inspections | | | |
| Carriers | 2,368 | 2,149 | 2,278 |
| Handlers | 386 | 351 | 372 |
| Number of searches conducted | 2,983 | 3,200 | 3,425 |
| Prelicense inspections | 2,213 | 2,200 | 2,200 |
| **Horse protection:** | | | |
| APHIS staff days and/or nights of inspecting or monitoring horse shows and sales | 200 | 180 | 180 |

5. Scientific and technical services -- APHIS develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety. The Agency's regulatory structure brings the benefits of genetic research to the marketplace, while protecting against the release of potentially harmful organisms into the environment. APHIS also conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, and eradication programs. The Agency also provides and directs technology development in coordination with other groups in APHIS to support plant protection programs of the Agency and its cooperators at the State, national, and international levels.

The statutory authority supporting this work is contained in 7 U.S.C. 7-7b, 8, 11, 15, 17, 30, 54, 55, 429, and 3801; 15 U.S.C. 44; 19 U.S.C 4; 21 U.S.C. 4, 5, and 45; 46 U.S.C. 15; and 49 U.S.C. 20. The principal legislative authority for these activities is contained in the Act of May 29, 1884; Act of August 30, 1890; Act of February 2, 1903; Act of March 3, 1905; Tariff Act of June 17, 1930; Act of September 21, 1944; the Organic Act of 1944, as amended by P.L. 94-231, enacted March 15, 1976; Act of February 28, 1947; Act of September 6, 1961; Act of July 2, 1962; the Virus-Serum-Toxin Act of March 14, 1913; and the ADC Act of 1931. Authority to collect user fees for veterinary diagnostics is contained in Section 2509 of the Food, Agriculture, Conservation, and Trade Act (Farm Bill) of 1990.

-- ADC Methods Development - The ADC program was transferred to APHIS on December 23, 1985, pursuant to P.L. 99-190; H.J. Res. 465, 99 Cong. 1st Sess. 1985. From 1939 until its transfer to APHIS, the program was a part of the U.S. Department of the Interior's Fish and Wildlife Service. The basic program mission is to protect American agriculture and other resources through identification, demonstration, and application of the best methods of controlling wild and free ranging animals that are detrimental to agriculture, other wildlife, and public safety. In support of this mission, research and development of control techniques and devices for the operations program and APHIS clientele are provided by the Denver Wildlife Research Center. The center conducts research to maintain current pesticide registrations with the Environmental Protection Agency for products such as strychnine, Compound 1080, and Starlicide (DRC-1339). Also, new or improved control tools such as soft traps, the livestock protection collar, repellents, and electroshock techniques are researched.

-- Biotechnology/Environmental Protection - This program's goal is twofold: (1) to protect American agriculture while allowing for the development of significant biotechnologically derived products for the

benefit of the agricultural producers and consumers, and (2) to assure that APHIS is in full compliance with the National Environmental Policy Act and other applicable statutes, executive orders, and regulations in all of its programs.

The biotechnology component of the program regulates the field release, interstate movement, and importation of genetically modified organisms, and licenses recombinant derived veterinary biologics for sale and distribution in the United States. The intent of this program is to certify and ensure that the introduction and field testing of new products do not present potential risks to America's plant and animal resources and/or industries, the general public, or the environment. The program provides the added benefit of fostering technology transfer by allowing for the safe field testing of potentially beneficial plants and micro-organisms and licensure of recombinant-derived veterinary biologics. Also, the program enhances technology transfer by working to reduce domestic and international barriers to biotechnology development and trade. Both activities support the President's goal of maintaining America's competitive edge in biotechnology.

APHIS uses environmental and scientific staff, and the National Monitoring and Residue Analysis Laboratory (NMRAL) at Gulfport, Mississippi to carry out a "circle of environmental protection" concept that enables APHIS' operational programs to comply in a proactive fashion with all environmental requirements--the National Environmental Policy Act and other environmental laws, regulations, and Executive Orders. Environmental scientists work with program planners to identify and develop viable alternatives to current control and eradication programs and to document APHIS' environmental planning activities.

The NMRAL provides analytical chemical services in support of APHIS' cooperative treatment programs employing agrochemicals to control or eradicate plant and animal pests. Principal programs supported include agricultural quarantine inspection, grasshopper, imported fire ant, boll weevil, Mediterranean fruit fly, and gypsy moth. In addition, the laboratory's activities are important to the Department by helping to promote food safety through the testing of various food products for pesticide residues, work which NMRAL typically performs under contract with the requesting agency. The program also maintains the registration of chemicals and other substances used in current APHIS programs, while helping to identify emerging, less environmentally invasive alternatives to current practices. In addition, the program develops monitoring plans that are used to assess the impact of Agency actions on the environment, and analyzes samples of soil, water, and crops for pesticide residue to determine the safety of ongoing and alternative programs.

-- Integrated Systems Acquisition Project (ISAP) - ISAP is an Agency initiative to establish a mechanism to procure automated data processing (ADP) equipment, software, and services which will enable APHIS' many information management applications to be developed and operate in a consistent, common ADP environment. This procurement is designed to replace the Agency's current mixture of incompatible, ADP systems. The ISAP initiative will improve the delivery and administration of Agency programs by integrating technologies and information across all levels of the Agency.

-- Plant methods development laboratories - Methods development supports APHIS programs primarily by optimizing existing pest control practices and by developing new technologies for pest exclusion, detection, and control. This is accomplished by evaluating new biological and

chemical materials, adapting or inventing equipment, providing technical consultation and training, collecting and disseminating pertinent information, participating in strategic and tactical planning, serving as a liaison between APHIS and the research community, and introducing technological advancements into integrated pest management systems.

-- Veterinary biologics The goal of this program is to prevent the importation, production, and distribution of impure, ineffective, unsafe, or impotent veterinary biological products in the United States. Program activities include the licensing of veterinary biological products, inspection of licensed manufacturing facilities, testing of statistically based samplings of licensed products, and the issuance of permits for the importation of these products. The program regulates both the interstate and intrastate distribution and sale of veterinary biological products. These activities help protect America's multi-billion dollar livestock and pet industries. The program also helps ensure that industry has an efficient regulatory pathway to bring beneficial products to American agriculture. This function fosters the growth of America's veterinary biologics industry, which is making use of the explosive growth of microbiological processes to develop sophisticated new products. Finally, the program participates in efforts to reduce unfair regulatory barriers to the entry of American veterinary biological products into foreign markets and works with industry to reduce the use of laboratory animals by making greater use of *in vitro* testing.

-- Veterinary diagnostics - APHIS maintains a diagnostic program for foreign and domestic animal diseases that threaten the livestock, poultry, and related industries of the United States. The program consists of diagnostic laboratory activities which include diagnostic assistance to the livestock and poultry industries, as well as to the States. APHIS operates laboratories located at Ames, Iowa, for diagnosing domestic diseases, and Plum Island, New York, for work on diseases exotic to the United States such as FMD. Services include differential diagnosis, blood and tissue examination, culture analysis, toxicological testing, and reagent and reference antigen production. The program also provides training in domestic and FAD diagnosis.

User fees were implemented in late FY 1993 to cover direct labor and material costs for veterinary diagnostic testing, reagent production, and reference assistance testing performed for private entities. During FY 1994, the user fee schedule will be reviewed to reflect current costs and to add tests, reagents, and services.

The Agency will increase its activity in the area of preharvest food safety by reviewing diagnostic procedures for blood borne pathogens and providing diagnostic assistance for APHIS's food safety initiatives.

The levels of scientific and technical activities are shown by the selected examples that follow:

| Program | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| **ADC methods development:** | | | |
| Registration/Reregistration: | | | |
| Number of data submissions | 45 | 51 | 50 |
| Number of quarterly, annual, and consortia progress reports | 40 | 32 | 34 |
| Number of registration applications | 25 | 25 | 27 |
| Number of investigational new animal drug application - (requires FDA approval) | – | 1 | – |
| Number of data "call-in" - (data collected on pesticides (chemical-repellents) for EPA reregistration) | 5 | 4 | 11 |
| Research: | | | |
| Studies initiated | 72 | 60 | 60 |
| Studies completed | 30 | 40 | 42 |
| Studies in progress | 95 | 90 | 92 |
| Publications | 60 | 74 | 59 |
| **Biotechnology/Environmental Protection:** | | | |
| Number of release permit applications received: | | | |
| Release | 89* | 90 | 100 |
| Importation | 57 | 60 | 75 |
| Movement | 177 | 75 | 125 |
| Number of release permits issued: | | | |
| Release | 89 | 85 | 95 |
| Importation | 53 | 60 | 75 |
| Movement | 172 | 75 | 125 |
| Number of days to process: | | | |
| Release | 45 | 75 | 90 |
| Importation | 33 | 45 | 45 |
| Movement | 33 | 45 | 45 |
| Number of notifications received (since inception of process, 5/1/93) for corn, cotton, potato, soybean, tobacco, tomato: | | | |
| Release | 213** | 700 | 1,200 |
| Importation | 23 | 10 | 12 |
| Movement | 147 | 400 | 600 |
| Number acknowledged: | | | |
| Release | 189 | 665 | 1,140 |
| Importation | 17 | 10 | 12 |
| Movement | 133 | 350 | 575 |
| Number of days to acknowledge: | | | |
| Release | 27 | 25 | 25 |
| Importation | 11 | 10 | 10 |
| Movement | 9 | 8 | 8 |
| Technical and Scientific Services (NMRAL): | | | |
| Number of program samples analyzed | 3,993 | 4,500 | 4,500 |
| Number of contract samples analyzed | 5,811 | 7,000 | 7,000 |

* Includes release renewal permits. Maximum 120-day review period.

** Includes 63 permits "rolled over" into notification when the latter option became available. Thirty day period required between receipt and initiation of release. Acknowledgement may occur prior to the 30-day maximum period.

| | | | |
|---|---|---|---|
| Plant methods development: | | | |
| Aerial pesticide application technology tests | 1 | 5 | 4 |
| Asian gypsy moth: | | | |
| Formal presentations | 5 | 6 | 6 |
| Manuscripts | 1 | 3 | 10 |
| Research experiments | 17 | 20 | 20 |
| Consultations | 100 | 100 | 50 |
| Gypsy moth: | | | |
| Formal presentations | 12 | 12 | 12 |
| Manuscripts | 3 | 4 | 4 |
| Pheromone trials | 5 | 10 | 5 |
| Aerial pesticide technology development tests | 8 | 10 | 10 |
| Insecticide formulation tests in the laboratory | 28 | 30 | 30 |
| Consultations | 102 | 102 | 102 |
| Biological control: | | | |
| Formal presentations | 9 | 12 | 12 |
| Impact evaluation | 5 | 8 | 8 |
| Research experiments | 7 | 11 | 11 |
| Cooperative studies | 3 | 8 | 8 |
| Consultations | 10 | 17 | 17 |
| Exotic pest survey: | | | |
| Formal presentations | 3 | 4 | 4 |
| Pheromone trials | 2 | 4 | 5 |
| Consultations | 64 | 64 | 64 |
| Production of survey dispensers | 45,000 | 50,000 | 50,000 |
| Consultations on exotic pest survey methods | 83 | 103 | 103 |
| Grasshopper: | | | |
| Formal presentations | 2 | 2 | 2 |
| Bio-insecticide formulations tested in the field | 1 | 1 | 15 |
| Bio-insecticide laboratory tests | 10 | 10 | 10 |
| Insecticide formulations tested in the field | 3 | – | 3 |
| Insecticide formulations tested in the laboratory | 1 | 3 | 3 |
| Field evaluations of IPM treatments | 7 | 7 | 7 |
| Individual training for grasshopper identification | 3 | 3 | 3 |
| IPM technology transfer team activities/sessions | 5 | 6 | 6 |
| Manuscripts | 2 | 1 | 1 |
| Identification techniques: | | | |
| Formal presentations | 2 | 4 | 4 |
| Research experiments | 23 | 25 | 25 |
| Cooperative studies | 7 | 10 | 10 |
| Insect identifications | 7,250 | 5,000 | 5,000 |
| Consultations | 60 | 70 | 70 |
| Imported fire ant: | | | |
| Formal presentations | 21 | 20 | 20 |
| Manuscripts | 8 | 5 | 5 |
| Experiments | 45 | 50 | 50 |
| Insecticidal treatments evaluated | 21 | 25 | 25 |
| Consultations | 200 | 200 | 200 |
| Mediterrenan fruit fly: | | | |
| Traps and Lure Tests | 14 | 18 | 18 |
| Mass rearing and SIT | 15 | 22 | 24 |
| Competitiveness Tests | 9 | 12 | 10 |
| Consultations | 30 | 45 | 45 |
| Mexican fruit fly: | | | |
| Field trials conducted of new traps and lures | 7 | 9 | 9 |
| Aerial pesticide and technology tests | – | 3 | 2 |
| Mass-rearing and sterile release technology | 6 | 7 | 9 |
| Noxious weeds: | | | |
| Formal presentations | 25 | 28 | 31 |
| Manuscripts | 14 | 16 | 16 |
| Research experiments | 55 | 65 | 65 |
| Species projects | 50 | 60 | 65 |
| Consultations | 223 | 275 | 300 |
| Pine shoot beetle: | | | |
| Formal presentations | 4 | 6 | 6 |
| Manuscripts | 1 | 1 | 3 |
| Research experiments | 10 | 10 | 15 |
| Consultations | 25 | 50 | 50 |
| Regulatory treatments investigated | 15 | 15 | 5 |
| Pink bollworm: | | | |
| Formal presentations | 3 | 3 | 3 |
| Shipments of test insects | 125 | 150 | 150 |
| Pheromone system field trials | 3 | 2 | 4 |
| Mass-rearing assistance to major field trials | 30 | 30 | 30 |

| | | | |
|---|---|---|---|
| Whitefly: | | | |
| Formal presentations | 3 | 3 | 3 |
| Manuscripts and reports | 3 | 4 | 4 |
| Evaluation of area-wide management projects | 2 | 2 | 4 |
| Predator colonies remained | 1 | 2 | 1 |
| Predator field tests | 5 | 5 | 5 |
| Parasite release and evaluation | 2 | 4 | 4 |
| Witchweed: | | | |
| Formal presentations | 25 | 15 | 15 |
| Manuscripts | 14 | 13 | 13 |
| Research experiments | 45 | 26 | 16 |
| Herbicidal treatments investigated | 55 | 40 | 20 |
| Consultations | 170 | 185 | 210 |
| Technical support | 28 | 30 | 30 |
| **Veterinary biologics:** | | | |
| Number of serials processed for release | 22,741 | 17,000* | 12,500 |
| Number of serials submitted for pre-release check testing | 10,506* | 11,500 | 12,500 |
| Percent of serials tested for: | | | |
| Potency | 8.9 | 8.0 | 8.0 |
| Purity | 4.2 | 4.0 | 4.0 |
| Sterility | 4.2 | 4.0 | 4.0 |
| Safety | 0.03 | 0.03 | 0.03 |
| Chemistry | 0.3 | 0.3 | 0.3 |
| Number of inspections: | | | |
| In-depth | 68 | 55 | 70 |
| Follow-up | 12 | 10 | 10 |
| Special | 36 | 35 | 35 |
| Percent of inspections that find unsafe practices | 57 | 55 | 60 |
| * Reduction in total numbers due to removal of release and check-testing requirements for first-serial autogenous biologics. | | | |
| **Veterinary diagnostics:** | | | |
| Number of import-export health requirement tests conducted at National Veterinary Service Laboratories (NVSL) | 70,000 | 70,000 | 70,000 |
| Number of import-export health requirement tests conducted at Foreign Animal Diseases Diagnostic Laboratories (FADDL) | 21,000 | 22,000 | 22,000 |
| Number of fraudulent blood screening tests conducted | 70,000 | 70,000 | 70,000 |
| Number of diagnostic tests conducted at NVSL | 485,000 | 500,000 | 500,000 |
| Volume of reagents shipped (milliliters): | | | |
| By NVSL | 3,200,000 | 3,300,000 | 3,300,000 |
| By FADDL | 200,000 | 200,000 | 200,000 |
| Number of training days provided: | | | |
| International students | 425 | 450 | 450 |
| Domestic students | 280 | 300 | 300 |

## GAO AUDITS

| Report No. | Title | Date Issued |
|---|---|---|
| RECD-93-22 | Food Safety: "Building A Scientific Risk Based Meat & Poultry Inspection System" | 3/1/93 |

## OIG AUDITS

| Report No. | Title | Date Issued |
|---|---|---|
| 50600-[illegible]-AT | Federal Employees Compensation Act Program | 3/2/93 |
| 50566-0017-CH | Single Audit of the State of Minnesota | 9/30/93 |

| | | |
|---|---|---|
| 50568-263-KC | Audit of the State of Montana, Helena, Montana, for 2-year period ended June 30, 1991 | 7/13/93 |
| 50566-25-SF | A-128, State of Idaho | 2/5/93 |
| 50566-28-AT | A-128, State of Alabama | 3/2/93 |
| 33097-7-KC | Animal Damage Control, Cooperative Agreements | 5/7/93 |

JUSTIFICATION OF INCREASES AND DECREASES

(1) A net increase of $10,416,000 for pest and disease exclusion activities, consisting of:

(a) An increase of $1,163,000 for the Fiscal Year (FY) 1995 pay costs of 1.6 percent.

(b) An increase of $1,806,000 for the increase in non-salary costs of 2.6 percent.

(c) A decrease of $873,000 for the reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, APHIS will eliminate 17 staff years (4.9%), excluding AQI staff years, by the end of FY 1995. In addition, APHIS will be working with the other Marketing and Inspection Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(d) A decrease of $1,806,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, APHIS will be responsible for increasing the efficiency of providing the administrative functions. AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. And, FSIS will be responsible for increasing the efficiency of providing the personnel functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(e) An increase of $643,000 for the agricultural quarantine inspection (AQI) appropriated program ($24,246,000 available in FY 1994).

Need for Change. The AQI appropriated program protects American agriculture from exotic pests and diseases by supporting Mexican border activities, inspecting private and military aircraft and small tonnage vessels, and miscellaneous activities not funded by user fees. The program is designed to enhance exclusion of fruit flies, khapra beetle, and other exotic plant and animal pests and diseases. APHIS inspects passengers departing Puerto Rico and Hawaii for the U.S. mainland, as well as pedestrians and passenger motor vehicle traffic from Mexico.

Each person, bag, or cargo item entering this country could carry an exotic pest capable of causing a major outbreak. APHIS experienced almost 2 million passenger increase in predeparture inspections over the past 5 years in Hawaii and Puerto Rico, with minimal staffing.

Nature of Change. The increased funding will allow APHIS to better protect the mainland by providing additional staffing and equipment to high volume ports of entry and to those susceptible to tropical fruit fly infestations, such as those in Hawaii and Puerto Rico.

(f) An increase of $9,657,000 for the AQI user fees program ($91,460,000 available in FY 1994).

Need for Change. The principal objective of the AQI user fee program is to prevent pests and diseases of foreign origin from entering the United States and spreading within the country. APHIS experienced an increase in passenger inspections from 41 million in FY 1991 to 47 million in FY 1993. During this same time period, carrier inspections increased by over 24,000. Staffing increases in existing ports have expedited passenger inspections while improving APHIS' ability to detect pests. In addition, in FY 1995 new terminals are scheduled to open in Atlanta, Georgia, and Denver, Colorado.

Nature of Change. This increase would allow improvements in several key areas including permanent staffing, equipment, and automation. The AQI cargo inspection program will run more efficiently with the help of a nationwide automated tracking system, and the airport inspection program could provide improved coverage and more thorough inspections nationally and internationally.

(g) A decrease of $227,000 for import/export activities ($6,800,000 available in FY 1994).

Need for Change. The program goals are to protect U.S. animal and poultry populations against the introduction of exotic animal diseases and their vectors; facilitate and ensure exportation of animals, poultry, and related products that are free of communicable diseases; and protect U.S markets abroad.

By mid-FY 1994, additional user fees will be implemented, resulting in additional revenue to support import/export activities. These fees will enable the program to recover costs associated with providing inspection services at ports of entry for all animals presented for importation into the United States. In addition, the fees would cover costs for animal product importations, including the cost of issuing product permits and inspections at product establishments.

Nature of Change. APHIS will continue with planning activities related to the implementation of international regionalization agreements, but at a reduced level. This will enable the USDA to demonstrate its commitment to risk assessment. Staffing increases would not be provided for the National Center for Import-Export. APHIS will reduce the number of staff working on regionalization and risk assessment.

(h) An increase of $338,000 for international program activities ($5,826,000 available in FY 1994).

Need for Change. The goal of international programs is to provide leadership, management, and coordination of international activities pertaining to phytosanitary and zoosanitary measures and facilitate international trade. As international trade opportunities expand and

more countries participate in that trade, it is essential that APHIS work closely with emerging and developing countries.

Each year APHIS is required to reimburse the State Department for Foreign Affairs Administrative Support (FAAS) services. The FAAS system is a method of determining administrative support costs and distributing these costs among participating foreign affairs agencies overseas. FAAS services include but are not limited to medical services, regional security, imprest fund, housing, general support services, foreign service nationals, personnel services, motor pool, messenger services, and mail services. Funding for increased FAAS costs is necessary to avoid erosion of base funding for program activities.

Nature of Change. APHIS would increase technical information exchange with emerging and developing countries, which will benefit worldwide phytosanitary and zoosanitary conditions. In addition, APHIS will continue implementation of planned cross-training of international APHIS personnel on both plant and animal health issues. The request will also fund an estimated $103,000 in increased costs of services provided to APHIS under FAAS.

(i) A decrease of $97,000 for the Mexican fruit fly program, ($2,272,000 available in FY 1994).

Need for Change. Successful cooperative efforts under the Mexican national fruit fly plan and eradication program have caused the number of Mexican fruit fly (MFF) detections in the Baja California Sur area to fall significantly during FY 1993. Because of this progress, APHIS is able to scale back program activities in this region.

Nature of Change. APHIS would eliminate one or two field personnel positions, and would reduce support for sterile MFF production and releases by 10 percent in the Baja, California area. Trapping and supervision of Mexican trapping activities would be reduced. Cooperators will be asked to increase their contribution to help maintain program progress. Additionally, international and domestic activities are currently being coordinated and re-evaluated to minimize program impact resulting from reduced funding.

(j) A decrease of $188,000 for the screwworm program, ($34,645,000 available in FY 1994).

Need for Change. The screwworm program is a cooperative eradication effort established to prevent screwworms from entering the United States, by eradicating screwworms in Central America and establishing a permanent sustainable barrier at the Darien Gap in Panama. This will prevent northward movement of the pests from South America. Program objectives are accomplished through sterile fly dispersal, surveillance, quarantine, and livestock wound treatment. APHIS has identified the establishment of a barrier in Panama as the most cost effective strategy to protect the livestock industry from screwworms. While this is an imperative Agency goal, some flexibility in the program time-line permits activities to be scaled back to help sustain other APHIS activities which have less flexibility.

Nature of Change. APHIS would slightly decrease sterile fly production for the screwworm program. The program schedule to release flies in Costa Rica by mid FY 1995 would be extended by one quarter, and therefore would begin in the third quarter of FY 1995. The goal of establishing a barrier in Panama would be extended by one quarter, to the fourth quarter of FY 1996.

(2) A net increase of $199,000 for plant and animal health monitoring activities, consisting of:

(a) An increase of $383,000 for the FY 1995 pay costs of 1.6 percent.

(b) An increase of $715,000 for the increase in non-salary costs of 2.6 percent.

(c) A decrease of $1,031,000 for the reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, APHIS will eliminate 21 staff years (2.4%) by the end of FY 1995. In addition, APHIS will be working with the other Marketing and Inspection Service Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(d) A decrease of $715,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, APHIS will be responsible for increasing the efficiency of providing the administrative functions. AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. And, FSIS will be responsible for increasing the efficiency of providing the personnel functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(e) An increase of $47,000 for the Animal and Plant Health Regulatory Enforcement program ($5,849,000 available in FY 1994).

Need for Change. APHIS' Regulatory Enforcement program maintains a network of trained field investigators who conduct investigations of reported violations of APHIS regulations. The volume of cases associated with APHIS regulated programs such as animal welfare, agricultural quarantine inspection, plant protection and quarantine, and veterinary services continues to grow along with the complexity of investigations involving fraudulent blood, smuggling of prohibited plant or animal products, stolen dogs, and institutional animal care and use committee violations.

Nature of Change. The new aquaculture and pre-harvest pathogen reduction line-items also increase the volume and complexity of Regulatory Enforcement's case load. This line item will coordinate APHIS' contribution of $0.2 million for the regulatory science Center of Excellence at Pine Bluff, Arkansas.

(f) An increase of $800,000 for the pest detection program ($3,444,000 available in FY 1994).

Need for Change. The Pest Detection program provides improved information on plant pests and diseases, to support the competitive position of U.S. agricultural products in global markets. The

competitive position of agricultural products is enhanced in three ways: 1) Effective surveys provide early detection of exotic pests soon after their introduction to a new geographic range. This allows eradication programs to prevent the permanent establishment of pests or diseases in cropping systems. 2) When our phytosanitary officials possess accurate information on the presence or absence of species which are regulated in international trade, they can negotiate the most favorable positions in our trade agreements. 3) Production and protection costs of agricultural products include significant sums for pest management. Accurate and timely biological information supports decisionmaking which maximizes the efficiency of pest management expenditures. Computerized databases, communications networks, and advanced technologies such as global positioning systems and geographic information systems provide ways to increase the efficiency of pest surveys and management of the resulting data.

Additionally, the General Agreement on Tariffs and Trade negotiations and the North American Free Trade Agreement may lead to reductions in tariff or other traditional economic barriers and subsequently raise the importance of phytosanitary considerations in international trade agreements. There is also a need for pest surveillance in Mexico and the Caribbean to protect U.S. Agriculture and to support the risk assessments that allow agricultural trade.

Nature of Change. Increased funding will strengthen the network of Cooperative Agricultural Pest Survey (CAPS) by providing States and protectorates additional resources for survey and data management activities. Activities will be directed toward crops and forests which are at risk of infestation by exotic pest species and emphasize crops which lack export competitiveness because of insufficient data on the geographic range of their domestic pests. The increased funding will enable APHIS to conduct cooperative detection surveys for up to five exotic pest species in up to 15 States, with moderate probability of detecting an infestation within 8 years of introduction. CAPS cooperators will conduct surveys, aggregate data, utilize spatial data support systems, and provide improved information to phytosanitary officials thereby enhancing the export competitiveness of agricultural products.

Funds will also be used to support fruit fly surveys on one Caribbean Island that has not prepared baseline detection work, through transfer of technology and technical assistance. APHIS will review and support existing detection programs in countries where initial surveys were conducted, such as the Dominican Republic, Trinidad, and Grenada. APHIS will also participate in another critical survey in the western hemisphere, such as for brown citrus aphid, citrus tristea virus, chrysanthemum white rust, khapra beetle, or exotic fruit fly.

(3) A net decrease of $12,984,000 for pest and disease management activities, consisting of:

(a) An increase of $660,000 for the FY 1995 pay costs of 1.6 percent.

(b) An increase of $1,127,000 for the increase in non-salary costs of 2.6 percent.

(c) A decrease of $1,296,000 for the reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, APHIS will eliminate 26 staff years (1.6%) by the end of FY 1995. In addition, APHIS will be working with the other Marketing and Inspection Service Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(d) A decrease of $1,127,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, APHIS will be responsible for increasing the efficiency of providing the administrative functions. AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. And, FSIS will be responsible for increasing the efficiency of providing the personnel functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(e) A decrease of $2,558,000 for animal damage control operations activities ($26,092,000 available in FY 1994).

Need for Change. This program uses a combination of Federal and matching money from States, counties, and others to prevent and reduce damage caused by wildlife primarily to agricultural and natural resources as well as to human health and safety. Wildlife damage control programs are managed by APHIS' professional wildlife biologists.

A significant part of APHIS' mission is to protect American agriculture and other resources through identification, demonstration, and application of effective methods that control wildlife and other free-ranging animals, thereby minimizing their adverse impact on agricultural production, wildlife preservation, and public safety. However, persistent Federal deficits dictate that some APHIS programs must be reduced in order to achieve deficit reduction goals.

Nature of Change. APHIS would reduce current programs involving direct control and will not pursue new cost sharing initiatives. The Agency would rely on States and private entities to assume greater responsibility for activities involving direct control of damage by predators such as coyotes, beavers, blackbirds, and other species which damage the agricultural community. APHIS will implement new and more socially acceptable control methods to reduce wildlife damage and work to achieve compliance with NEPA requirements.

(f) An increase of $493,000 to establish an aquaculture program (no program in FY 1994).

Need for Change. Commercial aquaculture is the most rapidly growing segment of U.S. agriculture. Coinciding with this growth has been the proliferation of fish-eating birds which has increased the level of conflict between the bird populations and this industry. States are now recognizing aquaculture as a segment of agriculture, and many are assigning regulatory and developmental assistance responsibilities to their departments of agriculture.

Nature of Change. APHIS would establish a program to reduce bird damage to aquaculture while ensuring the continued viability of migratory birds in the United States. The Agency would increase its efforts to implement control methods to reduce bird and aquaculture conflicts, coordinate biological survey data, develop bird damage management plans, provide technical assistance to producers, develop a cooperatively funded control program, coordinate depredation permits with the Fish and Wildlife Service and the State wildlife agencies, establish liaison with wild fishery interests, and evaluate current control methods and develop new ones as necessary.

(g) An increase of $2,000,000 for the biological control (biocontrol) program ($5,702,000 available in FY 1994).

Need for Change. The APHIS biocontrol program is an important part of the Federal and State cooperative effort to acquire, produce, and distribute biological agents for Russian wheat aphid (RWA), leafy spurge, diffuse and spotted knapweed, Colorado potato beetle, cereal leaf beetle, and euonymus scale. Biological control constitutes an ecologically based, efficient pest management tactic that is fully compatible with other components of modern integrated pest management. Also, it is an environmentally sound approach to existing and future pest control strategies. In FY 1991 the RWA was first funded as a separate line item. The removal of the RWA project from the biological control line item has caused funding for the aphid biological control project to become fragmented. The remaining aphid project activities have been funded through the biological control line item. Since both projects use the same facilities and most of the same scientific staff, APHIS would prefer to fund both programs from a single source. In addition, APHIS is proposing to phase down and eliminate separate funding for the sweet potato whitefly (SPW) project.

Nature of Change. APHIS would consolidate funding for the RWA program under the biological control line item. Remaining activities in support of sweet potato whitefly eradication will also be funded through this line item. A total of $44,000 of the increase and $206,000 of existing funding will support SPW activities, for a total of $250,000. Maintenance of some exotic natural enemy cultures, recently imported at the National Biological Control Laboratory in Mission, Texas, will be available to the research community and State cooperators.

(h) A decrease of $5,018,000 for the brucellosis program ($31,004,000 available in FY 1994).

Need for Change. The brucellosis eradication program is a cooperative venture in which the Federal government may provide up to 60 percent of the funding and States must provide at least 40 percent. The brucellosis eradication program is operating under the industry supported Rapid Completion Plan (RCP). The success of the eradication program is significant. Nationwide there are 32 States, plus the District of Columbia, Puerto Rico, and the U.S. Virgin Islands, in Class "Free" status; 17 States in Class "A" status; and only one State in Class "B." The number of herds under quarantine continues to decrease. As of September 30, 1993, there were 283 herds under quarantine for brucellosis compared to 487 herds at the end of September 1992.

Nature of Change. APHIS will continue to pursue the goal of brucellosis eradication at a reduced level, including a reduction of approximately 29 staff years. Depopulation funds will be available to eliminate brucellosis from a limited number of herds having unusually

high or persistent levels of infection. APHIS would conduct first point of concentration testing in two high incidence States. The goal for eradicating brucellosis would be extended beyond FY 1998.

(i) An decrease of $40,000 for the golden nematode program ($658,000 available in FY 1994).

Need for Change. The goal of the program is to prevent the spread of the golden nematode to new locations outside the infested areas in New York State, and to reduce the level and number of infestations within the regulated areas. APHIS is accomplishing this goal by developing a biologically based management program that will allow growers to reduce golden nematode levels in currently infested areas.

Many residential and commercially developed properties within the regulated areas have not been removed from the list of infested property. APHIS, in conjunction with State regulatory officials, is reviewing the list of infested properties to remove those properties where potatoes will no longer be grown. In addition, APHIS continues to encourage New York State officials to require growers with exposed properties to adopt the management program. The management program includes crop rotation, cultural practices, and the use of golden nematode resistant potato varieties. This should result in a significantly reduced number of new infestations. As growers succeed in eliminating infestations, the need for surveys in New York State will diminish.

Nature of Change. Properties that no longer present risk will be removed from the list of infested property. In addition, APHIS will turn a portion of the golden nematode survey program over to the State.

(j) A decrease of $380,000 to eliminate the honey bee pests program ($380,000 available in FY 1994).

Need for Change. In FY 1991, APHIS shifted the focus of the Africanized honey bee (AHB) program to providing public information, identification and monitoring support, and technology transfer. In FY 1993, APHIS completed its three-phase monitoring plan for tracking the movement of AHB. Through the cooperative National Honey Bee Certification Program, the responsibility of AHB monitoring has been transferred to States and local agencies.

Nature of Change. The USDA, Extension Service, will continue to have the lead role in disseminating information on new or improved agricultural practices and technologies in managing honey bees in an AHB environment. APHIS will coordinate the monitoring of AHB and provide expertise to the States when requested. These activities will be funded by the miscellaneous plant pests program.

(k) A decrease of $2,700,000 to eliminate the imported fire ant program ($2,700,000 available in FY 1994).

Need for Change. Since 1977, no control substance that is registered for use on most agricultural lands has proven effective against the IFA. Since 1985, the Agency has not received any requests from States for cooperative treatment programs, and many States have proven themselves able to successfully eradicate small isolated infestations outside the regulated area. Areas currently regulated include: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, and Texas.

Nature of Change. APHIS would eliminate this line item since no effective, efficient, and environmentally acceptable control agents are available. All regulatory and survey activities would be conducted by the States. APHIS will continue to evaluate the efficacy of regulatory treatments for preventing further artificial spread of the IFA under the plant methods development line item.

(l) A decrease of $67,000 for the noxious weeds program ($475,000 available in FY 1994).

Need for Change. APHIS works with State and local agencies to detect noxious weeds and prevent them from damaging U.S. agriculture. The program began in 1979 with surveys in 25 States and Puerto Rico, port-of-entry inspections, hydrilla control in Florida, and the formation of a technical committee to evaluate noxious weeds. In recent years, funding was provided for control and eradication efforts directed at common crupina, goatsrue, hydrilla, and weed identification, but not for comprehensive surveys. However, the States' cooperation in the control and eradication of noxious weeds and the program successes in the goatsrue and hydrilla programs allowed a decrease in funding for the noxious weed program in FY 1993. In FY 1994, the focus of the goatsrue program will be redirected from eradication to control.

Nature of Change. Program goals for eradication programs, such as the goatsrue program in Utah and the common crupina programs in Washington and Oregon, will be redirected from eradication to control. This will reduce field activity resulting in the need for less supplies, equipment, and personnel.

(m) A decrease of $1,217,000 for the pink bollworm program ($2,292,000 available in FY 1994).

Need for Change. APHIS, California, and cotton producers operate a sterile moth rearing facility in Phoenix, Arizona. In FY 1990, the cotton producers purchased a replacement facility for the sterile moth rearing operation. Funds were appropriated in FY 1991, 1992, and 1993 to purchase equipment for the replacement facility, and to prepare the building for installation of the equipment. By the end of FY 1993, APHIS purchased the equipment needed to match the production capacity of the old rearing facility.

Nature of Change. Expanded production capacity would be necessary if APHIS conducted a 3 year Integrated Pest Management demonstration project using pheromone systems, sterile moth release, and short-season cultural practices; however, due to budget constraints the demonstration project has been postponed. APHIS will not purchase equipment needed to expand the production capacity of the sterile moth rearing facility in FY 1995.

(n) An increase of $5,702,000 to establish the preharvest pathogen reduction program (no program in FY 1994).

Need for Change. The goal of the program is to enhance the safety and wholesomeness of animal food products. Preharvest food safety programs are needed to prevent human foodborn illnesses by reducing biological and chemical pathogens at the farm level. The program goal will initially focus on risk assessment techniques, Hazard Analysis and Critical Control Point (HACCP) systems (a method of focusing on areas where changes will have a positive effect), data collection and analysis, identification and traceback, and monitoring and surveillance. APHIS, with its network of epidemiologists, experience in working with producers at the farm level, and a field and laboratory

network of veterinarians, scientists, and animal health technicians, is ideally positioned to carry out these activities. This proactive approach to increase the overall awareness of food safety factors on the farm-to-table continuum will lead to increased consumer confidence in the safety of the food supply and strengthen USDA's ability to oversee the food production process. Also, by achieving higher food safety standards than our trading competitors, U.S. producers will have a decided advantage in securing competitive international markets.

Nature of Change. Funding would support implementation of a preharvest pathogen reduction program, allowing APHIS to become an active partner with the Food Safety and Inspection Service (FSIS) and other agencies with food safety responsibilities. There will be active collaboration with FSIS and public health officials to trace back and investigate foodborne disease outbreaks such as E. Coli 0157:H7, Listeria monocytogens, and campylobacter. APHIS would expand diagnostic testing for potential foodborne pathogens using samples generated by existing monitoring and surveillance activities. APHIS would conduct tracebacks and investigations on some foodborne disease outbreaks. Also, funding would allow for the redesign of an identification and recordkeeping system that would enhance premises of origin and individual animal identification. In addition, funding provides for a Center of Excellence at the University of Maryland - Eastern Shore. The Center will focus on reducing risks of microbiological contamination in poultry and poultry products at all stages of the farm-to-table food safety continuum, with particular emphasis on the preharvest level.

(o) A decrease of $1,098,000 for the pseudorabies eradication program ($4,543,000 available in FY 1994).

Need for Change. APHIS fully supports this cooperative State-Federal-industry program to eradicate pseudorabies. However, the Agency believes that the program expertise maintained by the States and industry, the increased role in the program that certain States have adopted, and recent program successes will enable the Agency to make great strides toward accomplishing the goals of the industry-developed eradication plan. Among recent program successes in FY 1993, 21 States in addition to Puerto Rico and the U.S. Virgin Islands progressed to the next stage in the pseudorabies program and seven States (Alaska, Connecticut, Maine, Mississippi, New Mexico, Utah, and Wyoming) advanced to Stage V (Free) status. All States except for Iowa have progressed in their eradication programs and the number of infected hogs in these States has been decreasing since June 1990. The United States now has its lowest level of infected herds since the pseudorabies program began in 1988.

In FY 1994, the monitoring and surveillance activities associated with the pseudorabies program were transferred to the new animal health monitoring and surveillance line item and the pseudorabies line item continued to fund eradication activities.

Nature of Change. APHIS will continue to provide direct support for local programs to eradicate pseudorabies, but at a reduced level. The Agency will continue to provide national program coordination, technical advice, regulatory assistance, public information, and recordkeeping. The eradication goal would likely be extended beyond 2000.

(p) A decrease of $2,400,000 for the Russian wheat aphid (RWA) line item ($2,400,000 available in FY 1994).

Need for Change. Since the RWA program is dedicated to biological control technologies in APHIS, and utilizes the same staff and facilities involved in biological control programs, the Agency believes that the RWA program should be merged into the biological control line item.

Nature of Change. APHIS will no longer fund the RWA program as an individual line item. In FY 1995, program activities will be supported under the biocontrol program. The biocontrol line item includes $2.0 million to continue the RWA program.

(q) A decrease of $3,514,000 to eliminate the sweet potato whitefly (SPW) program ($3,514,000 available in FY 1994).

Need for Change. A SPW outbreak occurred in California in November 1991 and prompted an emergency declaration to combat the pest. APHIS requested and Congress provided a SPW line item in FY 1993 to facilitate the introduction of exotic natural enemies of the pest into the United States to significantly reduce SPW populations and insecticide use. Due to expedited and intensified program efforts in collaboration with ARS and State cooperators in FY 1993 and FY 1994, APHIS expects to provide exotic natural enemies of SPW to Federal and State cooperators and the private sector by FY 1995. This will allow the cooperators to mass produce and distribute all exotic natural enemies at the local level and evaluate the impact, thereby allowing for a reduction in funds for SPW in FY 1995.

Nature of Change. The decrease in funds will significantly reduce the Federal role in the SPW program. Some exotic natural enemy cultures recently imported at the National Biological Control Laboratory in Mission, Texas, will be maintained and made available to the research community and State cooperators. Foreign exploration for exotic natural enemies of SPW will not occur. Phasing down of the program will include minimal production, release, and field evaluation of the release and efficacy of imported natural enemies and their integration into alternative pest management strategies and laboratory cultures. SPW efforts will be supported with a total of $500,000 contributed equally from both the plant methods development and the biocontrol line items.

(r) An increase of $537,000 to establish a Tropical Bont Tick program (no program in FY 1994).

Need for Change. The program goal is to protect the United States from the introduction of heartwater, a disease vectored by the tropical bont tick (TBT). This would be carried out through participation in an international effort to eradicate the TBT from the Caribbean Islands. The TBT threat is similar to that posed by cattle fever ticks. Losses in the early 1900's due to ticks totaled $40-$60 million annually and losses today could reach $500 million annually. Despite extensive local control programs, the TBT continues to spread in the Caribbean, now infesting 19 islands. As TBT spreads in the Caribbean, the threat of introduction into the United States increases. Because TBT is an important vector for heartwater disease, the problem is magnified. Heartwater is already well established in three Caribbean islands, with serological evidence that it is present on nine others. Heartwater disease, and its vector the tropical bont tick, pose a threat not only to Caribbean livestock industries but also to much of the Western Hemisphere.

In FY 1991, the National Cattlemen's Association, fearing the spread of TBT and heartwater to the United States, passed a resolution supporting

APHIS' direct involvement in TBT eradication from the Caribbean. By strengthening animal health within the hemisphere and the agricultural infrastructures of the Caribbean countries, APHIS would be actively facilitating trade movement and would greatly enhance the exclusion and surveillance programs of the hemisphere as a whole. Conversely, if the TBT and its associated diseases go unchecked in the Caribbean, they could establish themselves throughout the region and eventually spread to the mainland of North, Central, and South America, causing a negative economic impact on a much larger scale.

Nature of Change. APHIS would initiate a pilot program for control of heartwater disease in the Caribbean through selective eradication of the TBT. APHIS would begin to work with the Food and Agriculture Organization of the United Nations, the Inter-American Institute for Cooperation on Agriculture, and the Economic Community of Caribbean Countries, as part of regional efforts aimed at controlling the spread of the tick and eradicating it from infested islands. APHIS will focus its efforts on the northern Caribbean islands. The Agency will place a full-time director of operations and a part-time information specialist.

(s) A decrease of $2,088,000 for the witchweed program ($4,081,000 available in FY 1994).

Need for Change. The program's goal is to prevent the spread of witchweed to host crop producing areas in the United States and move toward eventual eradication of the pest. Witchweed is a parasitic plant that attacks corn, sorghum, sugarcane, rice, and more than 60 species of the grass family. Witchweed can significantly reduce crop yields by robbing its host of nutrients and water. APHIS plans a phase down of the witchweed eradication program. From 1991 to 1993, the program reduced by 67 percent witchweed infested acreage, leaving about 40,000 infested acres. In FY 1994, APHIS plans to eradicate witchweed from 10,000 of the remaining infested acres.

Nature of Change. The decrease is consistent with the planned phase down of the program. As less acres remain to be eradicated, fewer personnel will be needed to operate the program. APHIS will continue to conduct survey, regulatory, and control activities to reduce witchweed infested acreage. Approximately 6,000 of the remaining 30,000 acres will be treated using control measures, such as specific herbicides, soil fumigants, and a seed stimulant. This will leave approximately 24,000 acres to be eradicated in FY 1996.

(4) A net decrease of $178,000 for animal care activities, consisting of:

(a) An increase of $76,000 for the FY 1995 pay costs of 1.6 percent.

(b) An increase of $101,000 for the increase in non-salary costs of 2.6 percent.

(c) A decrease of $137,000 for the reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, APHIS will eliminate 3 staff years (1.6%) by the end of FY 1995. In addition, APHIS will be working with the other Marketing and Inspection Service Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(d) A decrease of $101,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, APHIS will be responsible for increasing the efficiency of providing the administrative functions. AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. And, FSIS will be responsible for increasing the efficiency of providing the personnel functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(e) A decrease of $117,000 for the horse protection program ($481,000 available for FY 1994).

Need for Change. Congress increased the horse protection appropriation by $120,000 in FY 1994 to procure thermograph machines for the purpose of evaluating their effectiveness as an additional diagnostic tool to detect soring. The thermograph machine visually records and analyzes thermal heat energy naturally radiating from the lower leg of a horse. After the machines are acquired and employed in FY 1994, APHIS must then analyze their effectiveness as a program tool before making a decision to request funds for purchase of additional machines.

Nature of Change. This change would allow APHIS to continue ongoing field operations of the horse protection program at the existing level. Funds are not requested for acquisition of additional thermograph machines or related training in FY 1995.

(5) A net decrease of $618,000 for scientific and technical service activities, consisting of:

(a) An increase of $311,000 for FY 1995 pay costs of 1.6 percent.

(b) An increase of $526,000 for the increase in non-salary costs of 2.6 percent.

(c) A decrease of $669,000 for the reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, APHIS will eliminate 13 staff years (1.8%) by the end of FY 1995. In addition, APHIS will be working with the other Marketing and Inspection Service Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(d) A decrease of $526,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, APHIS will be responsible for increasing the efficiency of providing the administrative functions. AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. And, FSIS will be responsible for increasing the efficiency of providing the personnel functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(e) A decrease of $260,000 for animal damage control methods development ($9,681,000 available in FY 1994).

Need for Change. A significant part of APHIS's mission is to protect American agriculture and other resources through identification, demonstration, and application of effective methods that control wildlife and other free-ranging animals; thereby, minimizing their adverse impact on agricultural production, wildlife preservation, and public safety. However, persistent Federal deficits dictate that some APHIS programs must be reduced in order to achieve deficit reduction goals.

A strategic opportunity exists to establish Lincoln University at Jefferson City, Missouri, (an 1890 Land Grant Institution) as the U.S. Department of Agriculture's (USDA) Center of Excellence in Wildlife Management with a focus on improving the University's research and teaching capacities. This initiative would position the University to serve as a continuous source, beginning in FY 1994, for exploring and testing new wildlife management ideas, techniques, and methods and for developing a cadre of highly qualified and culturally diverse wildlife managers from which USDA agencies, other employers, and university graduate programs may recruit.

Nature of Change. Funds will continue to be used to support a program that focuses on maintaining and improving current methods for controlling damage caused by wildlife and other free-ranging animals and to continue to search for alternative methods. APHIS will slow the pace of reregistration of the lower priority vertebrate pesticides.

APHIS will provide $225,000 to continue developing Lincoln University's capacity as a USDA Center of Excellence. These funds, along with an equal amount of funds from U.S. Forest Service, together with resources from the University, will be used to support this effort.

Animal and Plant Health Inspection Service
Geographic Breakdown of Obligations and Staff-Years
1993 Actual and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Alabama..... | $4,033,766 | 42 | $4,161,364 | 42 | $4,017,413 | 42 |
| Alaska..... | 333,506 | 5 | 344,055 | 5 | 332,154 | 5 |
| Arizona..... | 10,315,081 | 84 | 10,641,373 | 84 | 10,273,262 | 84 |
| Arkansas..... | 2,412,891 | 63 | 2,489,217 | 63 | 2,403,109 | 63 |
| California.... | 35,911,762 | 469 | 28,408,005 | 467 | 27,425,305 | 469 |
| Colorado..... | 10,123,264 | 283 | 10,443,488 | 281 | 10,082,223 | 281 |
| Connecticut... | 469,687 | 10 | 484,544 | 10 | 467,783 | 10 |
| Delaware..... | 400,407 | 6 | 413,073 | 6 | 398,784 | 6 |
| Florida..... | 14,020,445 | 337 | 14,463,946 | 335 | 13,963,604 | 336 |
| Georgia..... | 5,085,499 | 61 | 5,246,366 | 61 | 5,064,881 | 61 |
| Hawaii..... | 12,553,727 | 213 | 12,950,832 | 212 | 12,502,832 | 213 |
| Idaho..... | 3,144,884 | 44 | 3,244,364 | 44 | 3,132,134 | 44 |
| Illinois..... | 2,135,800 | 41 | 2,203,361 | 41 | 2,127,141 | 41 |
| Indiana..... | 1,382,814 | 28 | 1,426,556 | 27 | 1,377,208 | 28 |
| Iowa..... | 20,493,433 | 53 | 21,141,691 | 53 | 20,410,350 | 53 |
| Kansas..... | 1,641,991 | 38 | 1,693,931 | 38 | 1,635,334 | 38 |
| Kentucky..... | 1,924,064 | 46 | 1,984,927 | 46 | 1,916,263 | 46 |
| Louisiana..... | 4,576,138 | 74 | 4,720,893 | 73 | 4,557,586 | 74 |
| Maine..... | 710,796 | 15 | 733,280 | 15 | 707,914 | 15 |
| Maryland..... | 71,782,391 | 820 | 74,053,045 | 817 | 71,491,374 | 819 |
| Massachusetts. | 2,492,626 | 48 | 2,571,474 | 48 | 2,482,520 | 48 |
| Michigan..... | 4,564,275 | 74 | 4,708,654 | 74 | 4,545,770 | 74 |
| Minnesota..... | 31,956,205 | 208 | 32,967,059 | 208 | 31,826,650 | 208 |
| Mississippi... | 5,888,435 | 105 | 6,074,701 | 105 | 5,864,562 | 105 |
| Missouri..... | 2,320,452 | 44 | 2,393,853 | 44 | 2,311,044 | 44 |
| Montana..... | 3,025,340 | 58 | 3,121,039 | 58 | 3,013,075 | 58 |
| Nebraska..... | 2,379,842 | 36 | 2,455,122 | 36 | 2,370,194 | 36 |
| Nevada..... | 1,240,868 | 24 | 1,280,120 | 24 | 1,235,837 | 24 |
| New Hampshire. | 382,998 | 9 | 395,113 | 8 | 381,445 | 9 |
| New Jersey.... | 6,246,794 | 110 | 6,444,396 | 110 | 6,221,469 | 110 |
| New Mexico.... | 2,423,511 | 54 | 2,500,173 | 54 | 2,413,686 | 54 |
| New York..... | 9,203,526 | 208 | 9,494,656 | 207 | 9,166,214 | 208 |
| North Carolina..... | 6,876,638 | 116 | 7,094,163 | 115 | 6,848,759 | 116 |
| North Dakota.. | 2,075,840 | 26 | 2,141,504 | 26 | 2,067,424 | 26 |

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff Years | Amount | Staff Years | Amount | Staff Years |
| Ohio..... | 1,724,320 | 28 | 1,778,864 | 28 | 1,717,329 | 28 |
| Oklahoma..... | 3,086,629 | 62 | 3,184,267 | 62 | 3,074,116 | 62 |
| Oregon..... | 3,465,923 | 55 | 2,890,177 | 55 | 2,790,199 | 55 |
| Pennsylvania.. | 4,088,518 | 59 | 4,217,848 | 59 | 4,071,943 | 59 |
| Rhode Island.. | 192,255 | 3 | 198,337 | 3 | 191,476 | 3 |
| South Carolina..... | 4,576,992 | 57 | 4,721,773 | 56 | 4,558,436 | 56 |
| South Dakota.. | 1,259,256 | 21 | 1,299,089 | 21 | 1,254,151 | 21 |
| Tennessee..... | 3,237,035 | 70 | 3,339,430 | 70 | 3,223,911 | 70 |
| Texas..... | 33,878,627 | 587 | 34,950,292 | 583 | 33,741,278 | 583 |
| Utah..... | 2,486,929 | 33 | 2,565,597 | 33 | 2,476,847 | 33 |
| Vermont..... | 417,098 | 10 | 430,292 | 10 | 415,407 | 10 |
| Virginia..... | 1,631,254 | 31 | 1,682,855 | 31 | 1,624,641 | 31 |
| Washington.... | 4,823,180 | 68 | 4,290,368 | 68 | 4,141,954 | 68 |
| West Virginia. | 714,045 | 14 | 736,632 | 14 | 711,151 | 14 |
| Wisconsin..... | 2,593,326 | 67 | 2,675,360 | 67 | 2,582,813 | 67 |
| Wyoming..... | 1,673,813 | 41 | 1,726,759 | 41 | 1,667,027 | 41 |
| Wash., DC..... | 41,203,055 | 436 | 42,506,410 | 434 | 41,036,012 | 435 |
| Puerto Rico... | 17,553,632 | 209 | 6,941,475 | 209 | 6,701,353 | 209 |
| Virgin Islands..... | 306,689 | 6 | 316,391 | 6 | 305,446 | 6 |
| Asia/Pacific.. | 1,056,102 | 8 | 1,089,509 | 8 | 1,051,820 | 8 |
| Bahamas..... | 506,426 | 4 | 522,446 | 4 | 504,373 | 4 |
| Central America..... | 7,720,513 | 15 | 7,964,732 | 15 | 7,689,213 | 15 |
| Chile..... | 274,124 | 11 | 282,795 | 11 | 273,013 | 11 |
| Colombia..... | 1,750,359 | 3 | 1,805,727 | 3 | 1,743,263 | 3 |
| Dominican Republic..... | 283,703 | 4 | 292,677 | 4 | 282,553 | 4 |
| Europe/Africa. | 1,258,639 | 13 | 1,298,453 | 13 | 1,253,536 | 13 |
| Guam..... | 6,498 | 0 | 6,704 | 0 | 6,472 | 0 |
| Guatemala..... | 2,725,620 | 15 | 2,811,838 | 15 | 2,714,570 | 15 |
| Mexico..... | 28,747,072 | 181 | 29,656,413 | 181 | 28,630,527 | 182 |
| Panama..... | 613,960 | 2 | 633,381 | 2 | 611,471 | 2 |
| Venezuela..... | 318,688 | 4 | 328,771 | 4 | 317,396 | 4 |
| Total, available or estimate..... | $458,703,976 | 5,969 | $452,036,000 | 5,947 | $436,399,000 | 5,960 |

NOTE: Total staff-years for 1993, 1994, and 1995 are 6,389, 6,470, and 6,400 respectively when staff-years for miscellaneous trust funds and reimbursements are included.

## Proposed Functional Line Item Structure

The Animal and Plant Health Inspection Service (APHIS) proposes to establish a new budget line-item structure for plant health activities that more accurately describes funding based on the actual functions performed. Currently, line items represent either a specific plant pest, a pest prevention or control program, or technical support (i.e., methods development). The proposed functional budget would provide for consistent pest exclusion, survey and monitoring, and scientific and technical services without direct links to traditional plant pest control programs. The structure would allow for continued survey and monitoring after pest eradication activities are completed. This budget restructure is similar to the restructure of animal health activities that become effective in Fiscal Year 1994.

The proposed functional budget would restructure 16 of the current line items into 5 functional line items as follows:

- The plant pest survey line item will combine the current fruit fly detection, grasshopper annual appropriations for surveys, miscellaneous plant pests, honey bee pests, imported fire ant, and plant pest detection program line items; plus the survey and monitoring portions of the gypsy moth, noxious weeds, pink bollworm, and witchweed program line items.

  The plant pest surveys will provide early detection of exotic plant pests to prevent sustained infestations and will monitor the effectiveness of plant pest management programs. The objectives are to conduct surveys that will effectively detect new infestations of exotic pests before they become established; to fully support post-eradication activities to maintain program accomplishments; and to facilitate the entry of U.S. agricultural products into international markets.

- The biological control line item will include the field delivery portion of the current biocontrol and Russian wheat aphid program line items. This is the operational portion of these programs and should remain separate from the methods development activities.

- The plant pest management line item will include the current golden nematode, Mediterranean fruit fly, and Mexican fruit fly program line items; and the regulatory and control portions of the gypsy moth, noxious weeds, and pink bollworm program line items.

  The plant pest management line item will compliment the current boll weevil and grasshopper control and/or regulatory activities necessary to eliminate or restrict the economic and environmental damage caused by plant pests. The objectives of regulatory activities are to perform certification inspections of regulated articles and to conduct public information/education activities to prevent the spread of plant pests through artificial movement. The objectives of control activities will be to support pest management, suppression, and/or eradication programs to reduce or eliminate the economic impact of a pest utilizing the most effective and environmentally acceptable control strategy.

- The witchweed eradication line item will include the eradication portion of the current witchweed program line item. The eradication aspect of this program is short-term and should remain separate from the survey aspect of the program which is an ongoing activity and continues after eradication activities are shifted to the States.

- The plant program methods development line item will include the current plant methods program line item and the scientific and technical portions of the biocontrol and Russian wheat aphid program line items.

The plant program methods development line item will develop and advance new and existing operational technologies for plant pest exclusion, detection, suppression, and control for APHIS and its stakeholders in a cooperative effort with Federal and State agencies. The objectives are to develop technically sound management systems to support rearing facilities, to develop experimental systems and conduct field trials that allow for comparison of technologies for controlling unwanted pests and diseases.

Attached are crosswalk tables for 1993 to FY 1995. Also attached is a project statement which shows how the new line items would be used to represent the APHIS budget.

Proposed Line Item Structure
FY 1993 Crosswalk Table
(Actual Dollars)

| Current Program Name | FY 1993 Current | Plant Pest Survey | Biological Control | Plant Pest Management | Witchweed Eradication | Plant Program Methods Dev. |
|---|---|---|---|---|---|---|
| PEST & DISEASE EXCLUSION | | | | | | |
| Mediterranean fruit fly | 10,424,824 | | | (10,424,824) | | |
| Mexican fruit fly | 2,137,046 | | | (2,137,046) | | |
| PLANT AND ANIMAL HEALTH MONITORING | | | | | | |
| Fruit Fly Det. | 3,233,202 | (3,233,202) | | | | |
| Pest Detection | 4,281,942 | (4,281,942) | | | | |
| PEST AND DISEASE MANAGEMENT | | | | | | |
| Biocontrol | 5,038,081 | | (1,712,948) | | | (3,325,133) |
| Golden Nematode | 644,036 | | | (644,036) | | |
| Grasshopper | 3,178,814 | (3,178,814) | | | | |
| Gypsy Moth | 4,479,802 | (1,567,931) | | (2,911,871) | | |
| Honeybee Pests | 283,255 | (283,255) | | | | |
| Imported Fire Ant | 3,475,158 | (3,475,158) | | | | |
| Misc. Plant Pests | 2,135,211 | (2,135,211) | | | | |
| Noxious Weed | 637,862 | (31,893) | | (605,969) | | |
| Pink Bollworm | 2,870,127 | (1,291,557) | | (1,578,570) | | |
| Russian Wheat Aphid | 1,920,104 | | (652,835) | | | (1,267,269) |
| Sweet Potato Whitefly | 2,583,022 | | (1,214,021) | | | (1,369,001) |
| Witchweed | 5,588,081 | (1,788,186) | | | (3,799,895) | |
| SCIENTIFIC AND TECHNICAL SERVICES | | | | | | |
| Plant Methods | 5,191,236 | | | | | (5,191,236) |
| TOTAL | 58,101,803 | 21,267,149 | 3,579,804 | 18,302,316 | 3,799,895 | 11,152,639 |

Proposed Line Item Structure
FY 1994 Crosswalk Table
($ In Thousands)
(Appropriated)

| Current Program Name | FY 1994 Current | Plant Pest Survey | Biological Control | Plant Pest Management | Witchweed Eradication | Plant Program Methods Dev. |
|---|---|---|---|---|---|---|
| PEST & DISEASE EXCLUSION | | | | | | |
| Mediterranean fruit fly | 10,199 | | | (10,199) | | |
| Mexican fruit fly | 2,272 | | | (2,272) | | |
| PLANT AND ANIMAL HEALTH MONITORING | | | | | | |
| Fruit Fly Det. | 3,950 | (3,950) | | | | |
| Pest Detection | 3,444 | (3,444) | | | | |
| PEST AND DISEASE MANAGEMENT | | | | | | |
| Biocontrol | 5,702 | | (1,939) | | | (3,763) |
| Golden Nematode | 658 | | | (658) | | |
| * Grasshopper Reserve | 0 | 0 | | | | |
| Gypsy Moth | 5,203 | (1,821) | | (3,382) | | |
| Honeybee Pests | 380 | (380) | | | | |
| Imported Fire Ant | 2,700 | (2,700) | | | | |
| Misc. Plant Pests | 1,996 | (1,996) | | | | |
| Noxious Weed | 475 | (24) | | (451) | | |
| Pink Bollworm | 2,292 | (1,031) | | (1,261) | | |
| Russian Wheat Aphid | 2,400 | | (816) | | | (1,584) |
| Sweet Potato Whitefly | 3,514 | | (1,722) | | | (1,792) |
| Witchweed | 4,081 | (1,306) | | | (2,775) | |
| SCIENTIFIC AND TECHNICAL SERVICES | | | | | | |
| Plant Methods | 5,084 | | | | | (5,084) |
| TOTAL | 54,350 | 16,652 | 4,477 | 18,223 | 2,775 | 12,223 |

* In FY 1994, all grasshopper activities will be funded through the carryover in the grasshopper reserve no-year account, thus there are no new appropriated funds shown.

Proposed Line Item Structure
FY 1995 Crosswalk Table
($ In Thousands)
(Estimate)

| Current Program Name | FY 1995 Current | Plant Pest Survey | Biological Control | Plant Pest Management | Witchweed Eradication | Plant Program Methods Dev. |
|---|---|---|---|---|---|---|
| PEST & DISEASE EXCLUSION | | | | | | |
| Mediterranean fruit fly | 10,089 | | | (10,089) | | |
| Mexican fruit fly | 2,156 | | | (2,156) | | |
| PLANT AND ANIMAL HEALTH MONITORING | | | | | | |
| Fruit Fly Det. | 3,923 | (3,923) | | | | |
| Pest Detection | 4,206 | (4,206) | | | | |
| PEST AND DISEASE MANAGEMENT | | | | | | |
| Biocontrol | 7,754 | | (2,636) | | | (5,118) |
| Golden Nematode | 615 | | | (615) | | |
| * Grasshopper Reserve | 0 | 0 | | | | |
| Gypsy Moth | 5,177 | (1,812) | | (3,365) | | |
| Honeybee Pests | 0 | 0 | | | | |
| Imported Fire Ant | 0 | 0 | | | | |
| Misc. Plant Pests | 1,988 | (1,988) | | | | |
| Noxious Weed | 404 | (20) | | (384) | | |
| Pink Bollworm | 1,069 | (481) | | (588) | | |
| Russian Wheat Aphid | 0 | | 0 | | | 0 |
| Sweet Potato Whitefly | 0 | | | | | 0 |
| Witchweed | 1,975 | (632) | | | (1,343) | |
| SCIENTIFIC AND TECHNICAL SERVICES | | | | | | |
| Plant Methods | 5,059 | | | | | (5,059) |
| TOTAL | 44,415 | 13,062 | 2,636 | 17,197 | 1,343 | 10,177 |

PROPOSED LINE ITEM STRUCTURE

PROJECT STATEMENT
(On Basis of Appropriation)

| Project | 1993 Actual | | 1994 Estimated | | Increase or Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | | Amount | Staff-Years |
| 1. Pest and disease exclusion: | | | | | | | |
| (a) Agricultural quarantine inspection (Appropriated)... | $23,742,021 | 546 | $24,246,000 | 600 | $894,000 | $25,140,000 | 618 |
| (b) Agricultural quarantine inspection (User fees)..... | 83,362,000 | 1,529 | 91,460,000 | 1,604 | 10,400,000 | 101,860,000 | 1,838 |
| (c) Foot-and-mouth disease..... | 4,226,198 | 10 | 4,046,000 | 11 | -51,000 | 3,995,000 | 10 |
| (d) Import-Export inspection.... | 11,163,785 | 148 | 6,800,000 | 91 | -265,000 | 6,535,000 | 89 |
| (e) International programs..... | 4,366,211 | 46 | 5,826,000 | 50 | 280,000 | 6,106,000 | 49 |
| (f) Screwworm..... | 31,167,301 | 87 | 34,645,000 | 91 | -616,000 | 34,029,000 | 82 |
| Total, Pest and Disease Exclusion..... | 158,027,516 | 2,366 | 167,023,000 | 2,447 | 10,642,000 | 177,665,000 | 2,686 |
| 2. Plant and animal health monitoring: | | | | | | | |
| (a) Animal health monitoring & surveillance..... | 59,378,000 | 636 | 59,933,000 | 657 | -552,000 | 59,381,000 | 643 |
| (b) Animal and plant health regulatory enforcement..... | 5,623,823 | 125 | 5,849,000 | 129 | 16,000 | 5,865,000 | 117 |
| (c) Plant pest survey..... | 21,267,149 | 287 | 16,652,000 | 261 | -3,590,000 | 13,062,000 | 221 |
| Total, Plant and animal health monitoring..... | 86,268,972 | 1,048 | 82,434,000 | 1,047 | -4,126,000 | 78,308,000 | 981 |
| 3. Pest and disease management: | | | | | | | |
| (a) Animal damage control operations..... | 25,568,147 | 511 | 26,092,000 | 525 | -2,661,000 | 23,431,000 | 482 |
| (b) Aquaculture..... | -- | -- | -- | -- | 493,000 | 493,000 | 6 |
| (c) Biological control..... | 3,579,804 | 58 | 4,477,000 | 66 | -1,841,000 | 2,636,000 | 42 |
| (d) Boll weevil..... | 10,089,239 | 100 | 13,226,000 | 95 | -142,000 | 13,084,000 | 96 |
| (e) Brucellosis..... | 30,356,655 | 277 | 31,004,000 | 255 | -5,252,000 | 25,752,000 | 197 |
| (f) Cattle ticks..... | 6,216,057 | 133 | 4,597,000 | 135 | -19,000 | 4,578,000 | 104 |
| (g) Grasshopper and Mormon cricket: no-year..... | 3,292,460 | -- | -- | -- | -- | -- | -- |
| (h) Plant pest management..... | 18,302,316 | 215 | 18,223,000 | 191 | -1,026,000 | 17,197,000 | 180 |
| (i) Preharvest pathogen reduction. | -- | -- | -- | | 5,702,000 | 5,702,000 | 54 |
| (j) Pseudorabies..... | 3,678,046 | 48 | 4,543,000 | 33 | -1,126,000 | 3,417,000 | 40 |
| (k) Salmonella enteritidis..... | 2,698,747 | 48 | 3,411,000 | 48 | -27,000 | 3,384,000 | 41 |
| (l) Scrapie..... | 746,851 | 13 | 3,000,000 | 32 | -31,000 | 2,969,000 | 25 |
| (m) Tropical bont tick..... | -- | -- | -- | -- | 537,000 | 537,000 | 3 |
| (n) Tuberculosis..... | 3,933,216 | 52 | 5,538,000 | 56 | -39,000 | 5,499,000 | 60 |
| (o) Witchweed eradication..... | 3,799,895 | 40 | 2,775,000 | 22 | -1,432,000 | 1,343,000 | 12 |
| Total, Pest and disease management..... | 112,261,433 | 1,495 | 116,886,000 | 1,458 | -6,864,000 | 110,022,000 | 1,342 |
| 4. Animal care: | | | | | | | |
| (a) Animal welfare..... | 9,414,220 | 172 | 9,262,000 | 177 | -59,000 | 9,203,000 | 171 |
| (b) Horse protection..... | 382,191 | 7 | 481,000 | 6 | -119,000 | 362,000 | 6 |
| Total, Animal care..... | 9,796,411 | 179 | 9,743,000 | 183 | -178,000 | 9,565,000 | 177 |
| 5. Scientific and technical services: | | | | | | | |
| (a) Animal control methods development..... | 9,551,637 | 122 | 9,681,000 | 125 | -329,000 | 9,352,000 | 119 |
| (b) Biotechnology environmental protection..... | 7,685,841 | 91 | 7,756,000 | 92 | -66,000 | 7,690,000 | 98 |
| (c) Integrated systems acquisition project..... | 2,098,798 | 5 | 3,500,000 | 17 | -- | 3,500,000 | 17 |
| (d) Plant program methods development..... | 11,152,639 | 200 | 12,223,000 | 214 | -2,046,000 | 10,177,000 | 187 |
| (e) Veterinary biologics..... | 9,772,190 | 181 | 10,434,000 | 191 | -63,000 | 10,371,000 | 184 |
| (f) Veterinary diagnostics..... | 14,285,314 | 169 | 14,946,000 | 173 | -135,000 | 14,811,000 | 169 |
| Total, Scientific and technical services..... | 54,546,419 | 768 | 58,540,000 | 812 | -2,639,000 | 55,901,000 | 774 |

| Project | 1993 Actual | | 1994 Estimated | | Increase or Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | | Amount | Staff-Years |
| 6. Contingencies: plant and animal diseases and pests | 5,838,672 | – | 4,938,000 | – | – | 4,938,000 | – |
| 7. Transfer to the Office of the Secretary | -212,000 | – | – | – | – | – | – |
| Unobligated balance available start-of-year | -22,731,000 | – | | | | | |
| Unobligated balance available end-of-year | 35,663,000 | – | – | – | – | – | – |
| Unobligated balance expiring | 1,086,000 | – | – | – | – | – | – |
| Total, Available or estimate, salaries and expenses | 440,545,323 | 5,856 | 439,564,000 | 5,947 | -3,165,000 | 436,399,000 | 5,960 |
| 8. CCC transfer (fruit fly and Asian gypsy moth | 16,094,304 | 115 | – | – | – | – | – |
| 9. From FNS for cattle tick | 10,825,000 | – | 12,472,000 | – | -12,472,000 | – | – |
| 10. Advances and Reimbursements: | | | | | | | |
| (a) Federal | 8,264,406 | 68 | 7,956,000 | 67 | -147,000 | 7,809,000 | 64 |
| (b) Non-Federal | 25,986,572 | 299 | 29,486,000 | 403 | 2,248,000 | 31,734,000 | 323 |
| Total, Advances and Reimbursements | 34,250,978 | 367 | 37,442,000 | 470 | 2,101,000 | 39,543,000 | 387 |
| Total, Available or estimate | 501,715,605 | 6,338 | 489,478,000 | 6,417 | -13,536,000 | 475,942,000 | 6,347 |

No-Year and Emergency Programs

| Project | 1993 Actual | 1994 Carry-Over | 1994 Appropriated | 1994 Available |
|---|---|---|---|---|
| Animal Damage Control | 5,988,955 | 900,842 | – | 900,842 |
| Boll weevil | 10,089,239 | 3,045,761 | 13,226,000 | 16,271,761 |
| Grasshopper/Mormon Cricket reserve fund | 3,292,460 | 13,267,552 | – | 13,267,552 |
| 10% of Screwworm | 2,437,852 | 1,026,648 | 3,465,000 | 4,491,648 |
| Contingency Fund | 5,838,671 | 2,086,662 | 4,938,000 | 7,024,662 |
| Fruit flies | 13,476,983 | 12,530,471 | – | 12,530,471 |
| Asian Gypsy Moth | 1,328,733 | 739,918 | – | 739,918 |
| ISAP | 2,098,817 | 1,837,189 | 3,500,000 | 5,337,189 |
| Total | 44,551,710 | 35,435,043 | 25,129,000 | 60,564,043 |

# ANIMAL AND PLANT HEALTH INSPECTION SERVICE

## SALARIES AND EXPENSES

## STATUS OF PROGRAM

### PEST AND DISEASE EXCLUSION

Current Activities: The Animal and Plant Health Inspection Service (APHIS) conducts agricultural inspections and international pest and disease programs, to prevent exotic plant and animal pests and diseases from entering the United States. Preventing the entry of exotic pests and diseases is increasingly challenging in the expanding global environment. International travel continues to increase. International trade has also increased, as a growing number of traditional and non-traditional agricultural products are imported and exported. The accelerating international activity increases the risk that pests and diseases will spread. Each person, bag, and import or export commodity could carry a pest or disease capable of causing a major outbreak. APHIS continues to conduct successful international control and eradication programs, and has expanded the number of items it monitors. Specific program efforts through which the Agency defends U.S. agriculture from pest and disease introductions are:

Inspection along U.S. borders and at ports-of-entry. Along with manual inspections, the Agency is exploring and utilizing alternative inspection methods and technologies. Each year, APHIS performs more inspections with X-ray systems and detector dogs. The use of new technologies has improved the overall efficiency and effectiveness of inspections.

Inspection of imported and exported animals. The Agency ensures that all exported livestock, live poultry, hatching eggs, bovine semen, and bovine embryos have been inspected and certified free from contagious diseases. Exports must also comply with health agreements between the U.S. Department of Agriculture (USDA) and importing countries. The Agency routinely meets with international agricultural health officials to facilitate international trade by clarifying and amending import requirements, as necessary.

Eradication and control of pests and diseases in foreign countries. The Agency combats pests and diseases in foreign countries, thus reducing their threat to the United States. APHIS works with international agricultural groups to keep Mexico and Central America free of foot-and-mouth disease and other exotic animal disease; to continue screwworm eradication through Central America; to eradicate Mediterranean fruit flies (Medfly) from Guatemala; and to prevent Mexican fruit flies (MFF) from infesting northwestern Mexico.

Selected Examples of Recent Progress:

1. Agricultural Quarantine Inspection (AQI)

In Fiscal Year (FY) 1993, 47 million passengers arrived at U.S. ports, an increase of almost 7 million over FY 1992. Passenger arrivals are projected to steadily increase to the year 2000. APHIS continued to work with the U.S. Customs Service to expedite the clearance of passengers while maintaining adequate protection for American agriculture. In addition, 1,799,729 passengers were precleared and

29,273 contraband interceptions were made for the Bahamas and Bermuda. Preclearance at domestic and overseas locations provides a high level of protection to U.S. agriculture. These activities help to protect the multi-billion dollar agriculture industry.

A military preclearance program was successfully completed in Somalia following Operation Restore Hope. Due to downsizing of military there has been a significant increase in the supervisory workload in areas such as Japan, Korea, and Europe. Road station vehicle inspection activities in northern Mexico continued and were effective in reducing the risk of fruit fly infested fruit from being introduced in fly-free areas of the United States. A total of 132 metric tons of contraband materials were treated or destroyed.

APHIS continued to use specially trained dogs to detect prohibited items at international airports. In FY 1993, APHIS maintained 33 detector dog teams located at 17 major airports and post offices in the United States. Honolulu, Los Angeles, and San Francisco post offices have dog teams. Within the next 2 years, we plan to expand the program to 60 teams.

The Agency continued using X-ray equipment as a screening tool in passenger baggage clearance. Currently, APHIS uses 74 X-ray machines at major airports and land border stations. The clearance units are located at 17 foreign-arrival sites and 8 departure sites. They include: San Juan (10), Miami (3), Hawaii (31), Chicago (2), JFK/New York (4), Houston (2), Boston (1), Atlanta (1), Dulles/Washington, DC area (1), Los Angeles (4), San Francisco (2), Elizabeth, New Jersey (2), Seattle-Tacoma (1), Dallas (2), San Jose (1), Orlando (1), San Ysidro (2), Hoboken, New Jersey (1), Roosevelt Road Navy (1), Mayaguez (1), and Ponce (1).

Air passenger baggage inspections continued at an increased level at the Tijuana Airport in Mexico, where 14.8 metric tons of quarantine materials were intercepted. A total of 2,818 live Mexican fruit fly larvae were intercepted from these products. One road station operation was turned over to Mexican counterparts.

APHIS uses its civil penalty authority for inadequate notice of arrivals, passenger baggage violations, and maritime garbage violations. In FY 1993, APHIS collected about $1.54 million in violations, assessing approximately 27,900 civil penalties. In addition, the Agency inspects cargo and carriers entering the United States. APHIS conducted inspections of about 45,000 ships and 919,349 regulated and miscellaneous cargo this fiscal year.

EXCERPT is a computerized database that contains up-to-date export summaries used for issuing phytosanitary certificates. With a personal computer and modem, users will be able to access a remote host computer to retrieve export summaries of more than 50 countries. Development, testing, and initial training of trainers for EXCERPT are complete. Beginning in February 1993, approximately 25 PPQ and National Plant Board sites from across the nation were brought on-line each month, with over 400 users by the end of October 1993. The FY 1994 work plan for EXCERPT calls for continued implementation nationwide.

During FY 1993, APHIS investigated 144 complaints of possible violations to plant health regulations. Also, 980 formal cases were initiated as a result of the findings of investigated complaints. The Agency issued 46 warnings and forwarded 190 cases to the Office of the General Counsel for final disposition.

The Farm, Agriculture, Conservation and Trade (FACT) Act, as amended by the Omnibus Budget Reconciliation Act of 1990, authorized APHIS to collect user fees for AQI services. On May 13, 1991, APHIS implemented fees for international aircraft passenger inspections and loaded boxcars. On July 1, 1991, APHIS implemented fees for inspections of commercial vessels and commercial trucks. User fees for export certification were implemented during FY 1992. The Agency collected an estimated total of $100.9 million in FY 1993. Since the implementation of user fees, APHIS has saved taxpayers $239.3 million.

2. Foot-and-Mouth Disease (FMD)

Panama and Central America

APHIS, in cooperation with animal health officials and other international organizations such as the International Regional Agricultural Health Organization, the Pan American Health Organization, and the Inter-American Institute for Cooperation in Agriculture, has continued to prevent FMD from entering the United States, Mexico, Panama, and Central America.

The Panama program conducted active FMD field surveillance in the border area adjacent to Colombia in support of the FMD-free status in Panama. APHIS continued to provide support for the Vesicular Disease Diagnostic Laboratory in Panama City, Panama, to ensure reliable and timely diagnostic capabilities for FMD detection throughout Central America. During FY 1993, over 350 Central American FMD-suspect biological specimens were processed at this laboratory. None of these specimens tested positive for FMD. However, numerous specimens tested positive for vesicular stomatitis, a disease clinically indistinguishable from FMD.

Colombia

In Colombia, APHIS provided financial and technical assistance to the cooperative Colombian Agriculture Institute and USDA's 50/50 cost sharing FMD control program. The program continued to maintain the FMD-free area in Colombia, contiguous with and southeast of the border with Panama. Success of this program can be measured by the gradual increase in the FMD-free areas in Colombia. This expanded area results in increased protection to Panama, Central America, Mexico, and the United States.

Mexico

APHIS continued its successful exclusion of FMD and other foreign animal diseases (FAD) in Mexico through the support of the joint Exotic Animal Disease Commission (EADC). EADC efforts are principally dedicated to: surveillance and outbreak investigations for prevention of FAD entering Mexico; diagnostic capabilities for rapid detection of FAD throughout Mexico; and training and public education to communicate animal disease prevention measures.

During FY 1993, there were 649 FAD investigations, 2,102 screwworm investigations, and 770 investigations for viral hemorrhagic disease of rabbits. Of the 396 cases of reportable diseases diagnosed by the EADC high containment laboratory, 78 were for vesicular investigations. Large increases in diagnosed cases of swine systemic diseases and equine neurologic diseases were observed in FY 1993.

Significant events occurring during FY 1993 included the identification of five screwworm cases in Veracruz and Taumalipas during May and June, respectively. Over 100,000 ranch visits were made during this emergency operation. In May, an outbreak of hog cholera was detected in Baja California Sur. Approximately 3,500 premises were visited, with a total of 2,062 animals sacrificed. The 116 necropsies completed in the field produced 150 samples sent to and processed at the EADC laboratory. In June 1993, the first case since 1972 of Venezuelan equine encephalomyelitis was reported in Chiapas, Mexico. A total of 158 field investigations were made and approximately 35,000 horses were vaccinated.

3. Import/Export Inspection

Import Animals

Two animal importations were conducted at the Harry S Truman Animal Import Center (HSTAIC) in FY 1993. The first, in October 1992, consisted of 102 breeding swine from Germany. These swine had negative results on tests for FMD, hog cholera (HC), and other swine diseases. They were released in January 1993. The second importation, in September 1993, consisted of 425 alpacas and llamas from Peru. Also in FY 1993, several thousand straws of bovine semen were imported from Brazil, a country where FMD exists. APHIS supervised the testing of the 26 bulls as well as the semen collection and processing.

In July 1993, a regulation was published that requires a 7-day vector-free quarantine period for imported horses from Mexico. This regulation was needed because of the outbreak of Venezuelan equine encephalitis in Chiapas, Mexico. APHIS veterinarians met with Mexican counterparts several times in FY 1993 to address animal health issues affecting the import and export of cattle, other ruminants, poultry, and equine and their products. Also in FY 1993, approximately 50,000 heifers were spayed by U.S. and Mexican veterinarians under APHIS supervision.

APHIS initiated regulation changes and developed protocols for the importation of sheep and goats and their embryos and semen. In addition, the Agency drafted protocols and regulations for the importation of cattle, sheep, and goat embryos from Africa, and wild ruminant semen from Thailand, Kenya, and Nepal. Protocols were also written for the importation of swine from Australia and Ireland and bovine semen from Ireland. Also in FY 1993, APHIS published proposed regulations concerning the importation of semen and embryos, the importation of ruminants and swine from FMD countries through the HSTAIC, and the removal of quarantine requirements in HSTAIC for the importation of camelids from Chile.

Boer goat embryos and 10 live goats were imported from Australia for research in FY 1993. The animals resulting from the embryos are quarantined for scrapie until 1995. Twenty-three Bactrain camels were refused entry because of caudal-fold responses to the tuberculin test. Mycobacteriosis was diagnosed and the animals were euthanized, because the importer could not find another country that would accept the animals.

Also in FY 1993, APHIS met with officials of the 1996 Olympic Games to develop quarantine and test requirements for the importation of horses into Atlanta, Georgia.

Export Animals

In FY 1993, APHIS negotiated with several countries to establish or update animal health protocols for the exportation of U.S. origin animals, semen, and embryos. Countries whose protocols were updated or revised included Algeria, Argentina, Bahrain, Brazil, Canada, Chile, Egypt, the European Community (EC), Israel, Jamaica, Japan, Korea, Mexico, New Zealand, Poland, Senegal, South Africa, Sweden, the Russian Federation, Taiwan, Thailand, Ukraine, and Zimbabwe. APHIS continued to participate in the U.S./Mexico Animal Health Working Group to discuss changes in import health requirements for each country and in the Canada/U.S. Trade Agreement (CUSTA) Technical Working Group meetings with Agriculture Canada. In addition, the Agency participated in a U.S./Mexico border port meeting to establish uniform import and export procedures for the U.S./Mexico border. APHIS also met with EC Member State representatives to discuss horse movements between the U.S. and the EC.

Among several diseases that affected the U.S. export market in FY 1993, porcine reproductive and respiratory syndrome (PRRS) had the most significant impact. Many countries restricted the importation of live swine, porcine semen, and pork due to PRRS occurrence in the United States. The most recent example of these restrictions occurred in Venezuela, where a total ban was imposed on the importation of swine and pork from countries with PRRS. USDA's routine avian influenza (AI) surveillance and the reported finding of non-pathogenic strains of the virus in the Northeast caused several Latin American countries to restrict the importation of day-old chicks, hatching eggs, and poultry meat. Also in FY 1993, the poultry industry invited veterinary officials from Colombia and Venezuela to observe the distinction between commercial poultry and backyard flocks. To date, only Venezuela continues to maintain a total ban on U.S.-origin poultry because of AI.

Animal Products

APHIS recognized France, New Caledonia, Spain, and The Netherlands as being free of FMD and Spain free of HC. In September 1993, a proposed regulation was published in the Federal Register to recognize Belgium as being free of FMD and the Agency conducted an onsite evaluation of the FMD situation in Germany. Also, APHIS withdrew recognition of Spain as free of swine vesicular disease (SVD) because of a March 1993 outbreak. SVD presence will delay approval by APHIS to allow the importation of certain cured and dried hams from Spain into the United States. During the year, APHIS issued 6,370 permits authorizing the importation of organisms, vectors, biological materials, and animal products and byproducts. This was an increase of 489 permits over the number issued in FY 1992. Anticipating the move towards regionalization, APHIS began developing strategies for evaluating and recognizing disease free areas. These include standards for assessing and analyzing risk factors that are critical to verifying and maintaining disease-free areas. Also in FY 1993, APHIS published a proposed regulation to allow the importation of cooked beef patties from FMD-affected countries.

4. International Programs

Foreign Disease and Pest Exclusion

APHIS veterinarians and plant health specialists worked closely with foreign governments and industry, particularly in Mexico, Central and South America, including the Andean countries, Italy, Kenya, Haiti, Japan, Taiwan, Korea, Australia, and New Zealand, to protect American

Agriculture. APHIS personnel also ensured the biological safety of animals, plants, and agricultural products coming into the United States through inspection and certification of foreign facilities, carriers and cargoes.

APHIS continued to conduct preclearance inspections of fruits, vegetables, and a limited amount of propagative material in 21 countries worldwide: Belgium, England, Ireland, Netherlands, Israel, Turkey, Spain, South Africa, Ecuador, Peru, Brazil, Venezuela, Mexico, Guatemala, South Korea, Japan, New Zealand, Australia, Chile, Argentina, and Haiti. Commodity preclearance overseas provides the United States with additional protection against the introduction of plant pests and diseases by detecting and eliminating pests at their origin.

FY 1993 preclearance activities in Chile, a major supplier of winter fruits and vegetables to the United States, remained stable at about 60 million cartons. APHIS has increased its activities with the Dutch bulb program, from preclearing 454,520,825 flower bulbs in 1973, to over 1 billion bulbs in 1993. These flower bulbs were destined to the United States for fall planting. Preclearance programs for mangos subject to hot water dip treatment continued in Mexico, Haiti, Brazil, Venezuela, Peru, and Ecuador. Imports are expected to increase with the opening of a new export facility, Nova Fronteira in Brazil, at the end of FY 1993.

Export Facilitation

The Agency has increased its efforts in the facilitation of U.S. agricultural exports worldwide through bilateral discussions with several countries including Japan, Australia, Chile, New Zealand, Korea, and Taiwan. APHIS participated in the Uruguay Round of the General Agreement on Trade and Tariffs negotiations and the U.S./EC Working Groups on phytosanitary and sanitary matters, the North American Free Trade Agreement negotiations, and the Mexico/United States working groups on phytosanitary and sanitary issues. In support of this, APHIS attaches stationed abroad increased their efforts and activities in identifying, negotiating, and eliminating technical zoosanitary and phytosanitary trade barriers that impede U.S. agricultural exports. APHIS increased its representation with the EC during FY 1993, with the establishment of a regional office in Brussels.

APHIS continued preclearance for Japanese and Korean sandpears; Mexican citrus, mangos, and other fruits; and, New Zealand and Australian apples and pears.

In August 1993, the APHIS Trade Support Team (TST) completed its 1-year pilot. This initiative was undertaken in response to the increasing volume and complexity of trade issues facing the Agency. In its first year, the TST achieved the following:

--Assisted the Department and the U.S. Trade Representative (USTR), in resolving commodity disputes with foreign governments over sanitary and phytosanitary issues. Sales of $120 million in apples and other fruit were preserved, through negotiations with Taiwan.

--Strengthened Department-wide coordination on trade issues. Day-to-day contact and coordination with the Foreign Agricultural Service (FAS) and the USTR on technical trade barrier issues has improved significantly.

This has helped ensure that APHIS' biosecurity objectives are integrated into the Department's international trade policy goals and negotiations.

--Performed monitoring and analysis of regional and global trade developments. Tracked and coordinated the Department's response to the new sanitary and phytosanitary situation evolving from the implementation of the EC single market plan.

--Served as focal point for inquiries on APHIS trade policies, activities, and other trade-related issues. The TST has provided these informational services to the Secretary's office, Agency field and headquarters personnel, U.S. government agencies, and U.S. industry groups.

--Provided APHIS representation at intradepartmental meetings regarding trade and environmental issues. Assisted in formulating Agency and/or Departmental responses and positions on environmental assessment of trade agreements, biotechnology and trade, and trade assessments of environmental agreements.

--Assisted in Agency and/or Departmental preparation for bilateral meetings and meetings with international organizations such as U.S.-Mexico Binational Commission, North American Plant Protection Organization, Inter-American Institute for Cooperation in Agriculture, Organization for Economic Cooperation and Development.

5. Mediterranean Fruit Fly (Medfly)

APHIS cooperated with the California Department of Food and Agriculture on a Medfly eradication project located in the Los Angeles basin during FY 1993. The 1,000 square-mile quarantine area included portions of Los Angeles, Orange, and San Bernardino Counties.

In FY 1993, APHIS' sterile Medfly rearing facility in Waimanalo, Hawaii, produced more than 18.4 billion sterile flies. More than 14 billion of these went to California for use in Medfly eradication projects. The facility is currently producing 300 million sterile flies per week for California eradication efforts. APHIS provided 1.5 billion sterile flies together with sterile release equipment to the Agricultural Research Service (ARS) in support of its Kauai eradication test. This test has now been completed, and APHIS currently provides small amounts of pupae on an as-needed basis for follow-up studies. APHIS and ARS also updated the National ARS Fruit Fly Research Plan to ensure that research supports current program needs. In addition, Agency support continues in order to maintain the Caribbean Fruit Fly Export Protocol.

APHIS continued efforts to prevent the northward spread of Medfly into northern Guatemala and southern Mexico through a cooperative 50/50 cost sharing program with Mexico and a cooperative program with Guatemala. Medfly populations increased significantly in southwestern Guatemala during FY 1993, resulting in increased outbreaks in southern Mexico. There were 119 Medfly detection sites reported in Mexico in 1993, some as far as 125 miles from the Guatemalan border. This situation compares with 25 detection sites in 1991 and 214 in 1992.

APHIS maintains a network of approximately 4,000 Medfly traps in Mexico to detect outbreaks that would threaten the United States. Also, APHIS and ARS scientists reviewed the Medfly rearing labs in Mexico and Guatemala and made suggestions that have improved the quality of the sterile flies produced there.

In other developments, APHIS initiated a pilot program to deploy a temperature sensitive lethal strain of sterile Medfly in Guatemala. Females can be eliminated from this strain in the egg stage, allowing for the production and release of only sterile males. The new strain will be available for field trials in FY 1994.

A single Medfly outbreak occurred in Belize in FY 1993, but was successfully eradicated. APHIS' direct oversight during the eradication effort allowed the papaya export program to continue.

6. Mexican Fruit Fly (MFF)

APHIS conducts a survey, regulatory, and control program to prevent the MFF from becoming established in the lower Rio Grande Valley and spreading to other citrus growing areas of the United States. As part of this program, APHIS, the State of Texas, and the citrus industry have developed the MFF protocol, which involves trapping and the release of sterile flies throughout the citrus growing areas of the lower Rio Grande Valley. This protocol enables commercial citrus to be transported out of the valley to other States and abroad, with greatly reduced use of chemical treatments. The program continues to expand as the citrus industry recovers from a freeze which occurred in 1989.

MFF detection and eradication activities are also carried out along the California-Texas-Mexico border, reducing the threat of infestation to California and Texas. This is a cooperative effort involving APHIS, the California Department of Food and Agriculture, and the Mexican plant health organization Sanidad Vegetal.

In FY 1993, APHIS produced over 2.5 billion pupae at the sterile fly rearing facility in Mission, Texas. The capacity of sterile fly production was doubled to meet program needs for eradicating infestations in northwest Mexico and in the State of California. Last year, the Agency released 785 million sterile flies in the LRGV to support the protocol, and is currently releasing approximately 30 million flies per week. In addition, the facility produced approximately 169 million sterile flies for eradication efforts in California and 1.147 billion for suppression and eradication programs in Sonora and northwest Mexico. In addition to sterile fly releases, program activities also include fruit stripping and ground bait applications, depending on MFF detections.

During FY 1993, the dispersion of sterile MFF in Baja California successfully prevented the establishment of MFF in southern California despite the capture of 84 native flies in the Tijuana, Mexico, area. A single MFF outbreak occurred in the Sonora fruit fly free zone, but was eradicated by the emergency response specified in the work plan. APHIS published a plan in the Federal Register to add one municipality to the free zone. APHIS' joint regulatory efforts with the Mexican Secretariat of Agriculture and Water Resources revealed incidents of commercial smuggling of host fruit at road stations and markets in Sonora and Baja California.

7. Screwworm

In FY 1993, APHIS continued to successfully prevent screwworm reintroduction into the United States. Self-sustaining populations of screwworms were eliminated from Mexico, Belize, Guatemala, and El Salvador. Active screwworm eradication continued in Honduras, and

sterile fly dispersal started in Nicaragua. A cooperative agreement was signed with Costa Rica on October 29, 1993, to enable continuation of the program in Central America.

The screwworm sterile fly production facility produced and distributed over 11 billion sterile insects, and field operations collected over 30,000 samples in FY 1993.

An outbreak of screwworm occurred in Mexico in FY 1992, with 61 positive cases having been detected during the fiscal year in five Mexican States. In response to this outbreak, the United States and Mexico initiated an emergency eradication effort involving intensive field surveillance and sterile fly dispersal in the affected areas and neighboring countries. On May 21, 1993, a positive sample was found in the State of Veracruz, Mexico, in an area just outside of the 1992 eradication area. Four additional cases were detected in a small area near the junction of the two Gulf Coast Mexican States of Veracruz and Tamaulipas. The last positive sample in this outbreak was collected on June 17, 1993. If no further positive samples are collected, eradication activities for this outbreak will end in December 1993. The screwworm eradication program cost $4.3 million during FY 1992 and FY 1993. This unexpected cost delayed the Central America programs by 12 to 24 months.

## PLANT AND ANIMAL HEALTH MONITORING

Current activities: APHIS monitors animal and plant health to detect and react to exotic pest and disease introductions. The Agency creates and updates endemic pest and disease information bases and monitors and carries out surveys in cooperation with States and industry. The Agency also surveys for exotic plant pests and investigates reports of suspicious animal pests and diseases. Early detection reduces their spread, helps eliminate significant losses, and helps maintain pest-free status for export certification of agricultural commodities. U.S. agriculture is currently free from hundreds of foreign pest and diseases. Survey data is essential for initiating action programs and results in better pest and disease management.

APHIS works with the States to compile two databases: the National Agricultural Pest Information System (NAPIS) and the National Animal Health Monitoring System (NAHMS). States enter the results of plant pest surveys directly into the NAPIS database, which includes crop hosts, location, weather conditions, pest life stages, crop damage, survey and control methods used on certain pests, and trapping methods. Descriptive data about the occurrence and costs of animal health events are collected from a statistically valid sample of producers for the NAHMS database. NAHMS reports can be used by producers to improve health and production efficiency of livestock and poultry.

Regulatory enforcement activities prevent the spread of communicable animal and plant pests and diseases in interstate trade. These activities include inspection, surveillance, animal identification, and prosecution. The Agency also investigates alleged violations of Federal animal welfare and horse protection laws and regulations and oversees and coordinates subsequent prosecution of violators through appropriate civil or criminal procedures.

The Agency maintains a cadre of trained professionals, prepared to respond immediately to potential animal and plant health emergencies. Reports of suspected exotic pests and diseases are investigated and emergency action is

taken if necessary. The Agency develops pathway studies and thoroughly investigates the progression of outbreaks to determine the origin of plant and animal pests and diseases.

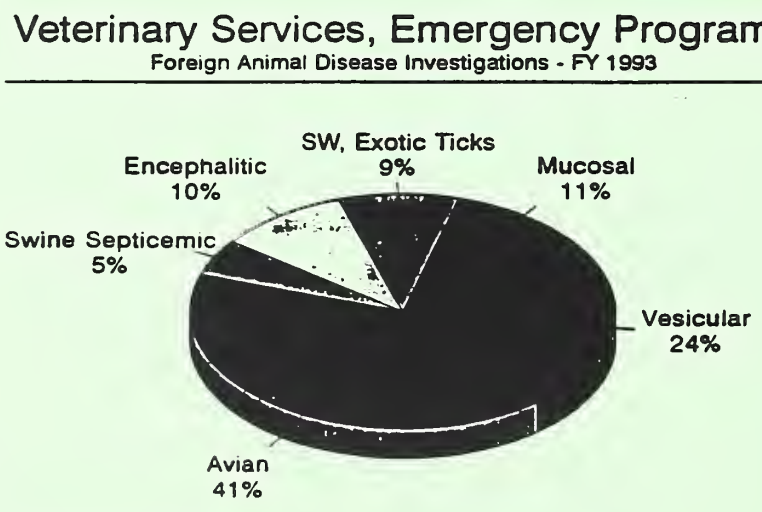
Selected Examples of Recent Progress:

1. Animal Health Monitoring and Surveillance

a.) Foreign Animal Disease Investigations

In FY 1993, APHIS conducted 299 investigations for suspected foreign animal diseases (FAD). Seventy-two of these investigations dealt with vesicular conditions, 33 dealt with mucosal disease conditions, 124 dealt with avian diseases, 14 dealt with swine septicemic conditions, 29 dealt with encephalitic conditions, and 27 dealt with screwworm, exotic ticks, or other disease conditions.

| FOREIGN ANIMAL DISEASE INVESTIGATIONS | | | |
|---|---|---|---|
| DISEASE | FY 1991 | FY 1992 | FY 1993 |
| Vesicular Conditions | 102 | 78 | 72 |
| Mucosal Conditions | 7 | 17 | 33 |
| Avian Diseases | 58 | 58 | 124 |
| Swine Septicemic Conditions | 22 | 11 | 14 |
| Encephalitic Conditions | 34 | 16 | 29 |
| Screwworm, Exotic Ticks, other | 35 | 60 | 27 |
| TOTAL NUMBER OF INVESTIGATIONS | 258 | 240 | 299 |




APHIS continued its surveillance program for hog cholera and African swine fever by collecting swine blood specimens at slaughterhouses in Maine, Massachusetts, New Hampshire, New Jersey, Arizona, Texas, and Puerto Rico. Additional samples were sent from Arkansas, California, Florida, Hawaii, Illinois, Kentucky, Rhode Island, Vermont, and Washington. The Agency's National Veterinary Services Laboratories (NVSL) in Ames, Iowa, tested 9,035 samples and all were determined to be

negative for both diseases. APHIS also continued its surveillance program for Velogenic Viscerotropic Newcastle Disease (VVND) and in April 1993, the NVSL isolated the VVND virus from parrots seized from smugglers crossing into the United States. The birds were quarantined and diagnostic samples were collected. Several of these birds died in quarantine. In FY 1993, no VVND outbreaks occurred among caged birds or domestic poultry in the United States. APHIS also continued its Bovine Spongiform Encephalopathy (BSE) surveillance program. In FY 1993, pathologists at NVSL and Iowa State University continued to examine bovine brains from the following sources: 1) FAD investigations where encephalitic conditions in cattle were reported; 2) bovine cases confirmed negative for rabies by the Centers for Disease Control in Atlanta, Georgia; 3) brain specimens collected from slaughterhouses in selected potential high-risk States; and 4) brain tissues submitted by veterinary diagnostic laboratories in the United States.

To enhance the surveillance process, APHIS and the USDA's Food Safety and Inspection Service initiated a pilot project to survey five slaughter plants receiving non-mobile cattle. In addition, Federal and State animal health officials contacted State public health and university diagnostic laboratories to arrange for submission of suspicious specimens to NVSL. Contacts have also been made with private practicing veterinarians to increase reporting rates and submission of brains from suspicious cattle. As of September 30, 1993, 1,215 bovine brains were examined and none contained lesions characteristic of BSE. Also, of the 393 head of traced cattle out of the total of 459 head of cattle imported from the United Kingdom since 1981, none have shown clinical signs of BSE and no BSE cases have been diagnosed in the United States.

In August 1993, APHIS and Agriculture Canada conducted a Regional Emergency Animal Disease Eradication Organizations (READEO) exercise of a simulated FMD outbreak in Montana and Alberta, Canada. An APHIS READEO and the Alberta Regional Emergency Response Team were activated simultaneously with task forces in Montana and Canada. The cattle, swine, and livestock marketing industry were actively involved in the planning and execution of the exercise. This was the first international exercise and the third consecutive exercise that the Agency has conducted to test and strengthen response capabilities to potential outbreaks of emergency animal diseases in the United States. Also in FY 1993, APHIS reviewed and updated its Memoranda of Understanding (MOU) with universities, State laboratories, Federal agencies, and industry to expand the Agency's capability of responding to animal disease emergencies. In addition, a MOU was developed with the American Veterinary Medical Association to establish a reserve cadre of veterinarians and animal health technicians to assist in an animal health emergency. In addition, the USDA-Industry Roundtable met to discuss the enhancement of livestock industry emergency preparedness, the organization of the READEO, and livestock industry interaction within these units.

In FY 1993, APHIS continued to increase FAD awareness and education by conducting two training courses, which provided extensive information on exotic animal diseases in ruminants, equine, and swine. The courses also focused on biosecurity issues, disease investigation techniques, and sample submission procedures. APHIS also participated in a course on the threats posed by FAD's. This course provided specific information on exotic animal diseases, disease control concepts, and the potential economic threat to the U.S. poultry, livestock, and wildlife populations. In addition, the Agency sponsored a workshop to train teachers and veterinary lab diagnosticians on infectious diseases. This

course enhances the awareness of exotic diseases and increases reported rates of specific emergency disease conditions. APHIS also sponsored a wildlife seminar for FAD diagnosticians. This program familiarized participants with wildlife management concepts and reviewed wildlife diseases of North America that have the potential to involve domestic livestock and poultry. In addition, the Agency published three issues of the Foreign Animal Disease Report and distributed them to over 7,000 readers. This report provides FAD updates along with information concerning current emergency preparedness and response activities worldwide.

b.) Miscellaneous Agricultural Monitoring

In FY 1993, the value of proactive animal health monitoring and surveillance was clearly demonstrated by the perceived emergence of a new animal disease, "Weak Calf Syndrome" (WCS), and information needs generated by two human disease outbreaks, E. coli O157:H7 and Cryptosporidium parvum. APHIS responded to a resurgence of WCS, a condition that caused a steep rise in calf deaths in Illinois, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska. The Agency provided information to the national media on WCS based on beef monitoring data, analysis of data from the National Agricultural Statistics Service, and data from veterinary diagnostic laboratories in the affected States. Scientifically sound, statistically valid information allayed fears and potential public hysteria as the national media spread news on all three of these emerging disease conditions. In addition, the APHIS, NAHMS used data and fecal samples collected in FY 1992 as part of NAHMS dairy monitoring to support outbreak investigations involving (1) E. coli O157:H7 food poisoning cases in Washington and Oregon that led to several human deaths and illness; and (2) Cryptosporidium parvum, a water-borne parasite that infected Milwaukee, Wisconsin's public water supply and led to the illness of an estimated 300,000 residents.

In FY 1993, NAHMS monitored the health and diseases of U.S. beef, dairy, and swine populations. Beef monitoring proceeded with producer interviews and collection of fecal, blood, and forage samples from targeted herds in 18 States with approximately 70 percent of the Nation's beef cow-calf population. Beef producers, industry groups, veterinary practitioner groups, and animal health officials received information on key beef issues including hide branding, vaccination injection sites, and reproductive efficiency. Hide branding is a key factor negatively affecting U.S. export competitiveness. The United States and Canada comprise approximately 43 percent, or $1.6 billion of the world export market; however, branding on the side or rib decreases the market value of a hide by 16 percent. Swine monitoring included summarizing and reporting monthly trends on the prevalence of Porcine Reproductive and Respiratory Syndrome, a swine disease that Mexico once used as a reason for refusing to buy U.S.-raised hogs. APHIS also used NAHMS expertise to increase the awareness of possible health conditions that could result from the 1993 flooding of the Mississippi River. Potential public and animal health, and regulatory medicine issues were explored in a report that forewarned and assisted animal health officials in areas affected by the flood.

APHIS began feedlot cattle death loss monitoring in FY 1993 and now reports monthly trends in death loss and cause of death in 40 U.S. feedlots, 1.2 million head of cattle, or about 16 percent of the U.S. feedlot cattle population. The Agency is using these trends to plan national feedlot cattle monitoring that will begin in the summer of 1994. In addition, patterns of other diseases in cattle, horses, and

hogs were tracked and reported through the compilation of test results from veterinary diagnostic laboratories in all regions of the United States. Twenty-four laboratories from 22 States now contribute data and expertise, an increase of five laboratories over FY 1992. Domestic and international distribution of reportable diseases provides key disease trend information to over 1,300 diagnosticians, veterinarians, and animal health officials.

Wholesomeness and quality of beef products was also supported through NAHMS beef monitoring analyses of injection practices in the U.S. beef cow/calf industry. Blemishes in beef products caused by injections to the animal decrease consumer confidence that the meat product is wholesome and of high quality. In 1991, beef producers lost $46 million due to meat that had to be trimmed from the top sirloin butt due to injection practices.

c.) Risk Assessment

APHIS identified and interpreted emerging animal and public health issues using NAHMS risk assessment capabilities and by assessing and analyzing data from multiple sources in addition to NAHMS. Other sources included the National Agricultural Statistics Service; the Centers for Disease Control; the Economic Research Service; and several private information collectors, including Rockwood Research and Doanes Agricultural Information. APHIS analyzed how previous risk factors for BSE have changed since APHIS first analyzed BSE risk for the United States. All risk factors analyzed show either no change since 1991 or a decrease in magnitude, suggesting a decline in BSE risk. APHIS initiated a risk assessment of swine feeding practices, including the disease risks potentially caused by feeding recycled commodities to hogs. Also, the Agency assessed and reported on bovine tuberculosis risk factors, including the importation of Mexican cattle and dramatic growth of the captive Cervidae industry, especially elk and deer, in the wake of a resurgence of cattle tuberculosis.

d.) E. Coli Projects

In FY 1993, APHIS began two projects to analyze and disseminate information on E. coli O157:H7, the foodborne pathogen responsible for serious human illness and death in Western States. These projects included conducting a study on E. Coli, O157:H7 in ground beef and a follow-up study on the 1991-2 NAHMS Dairy Heifer Evaluation Project, which tested calves on 1,068 farms in 28 States to estimate E. Coli prevalence in U.S. diary herds. Specifically, APHIS initiated a comprehensive assessment of E. Coli, O157:H7 in ground beef from farm to slaughterhouse. Also, the Agency analyzed preharvest animal management practices to gather information on the impact of management practices on food safety in general, and specifically E. Coli in ground beef. APHIS analyzed the results of the Dairy Heifer Project and conducted a case control study by re-testing the calves. This analysis demonstrated a very low prevalence of E. Coli, O157:H7 in U.S. dairy herds (less than one percent in calves and an estimated five percent of herds, as identified by fecal culture). APHIS also evaluated environmental and nutritional factors that influence the presence of E. Coli, and dairy calves' potential to act as long-term carriers, by comparing farms where the pathogen was identified to those where no infection was identified.

e.) Bluetongue

In FY 1993, APHIS conducted its annual bluetongue survey of cattle in 15 States. The results indicated that 13 of the States are bluetongue-free or have a low disease incidence with no major increase or decrease in infection. Indiana and North Dakota are the only two States with an incidence of bluetongue at or above the 2-percent allowance for less restrictive exportation of animals to Canada. The Canadian Department of Agriculture continues to use the survey results to allow livestock importation from low-incidence States with minimum testing requirements.

f.) Bovine Leukosis

In FY 1993, APHIS participated with industry representatives and members of the scientific community in developing the framework for a voluntary bovine leukosis-free herd certification program. Several States have certification programs for bovine leukosis, but this is the first attempt to develop a mechanism to recognize herds as leukosis-free on a national level. Bovine leukosis is a major obstacle to cattle exportation to the EC, where many member nations have mandatory control or eradication programs.

g.) Equine Diseases

Equine infectious anemia (EIA) is a viral disease of equine that causes fever, anemia, progressive weakness, and weight loss. The State-Federal cooperative EIA monitoring system revealed that in FY 1993, 1,859 (0.18 percent) of the 1,035,037 samples tested for EIA were identified as positive. In FY 1992, over 1,800 positive samples were identified out of approximately 857,000 samples, for an incidence of 0.22 percent. From FY 1992 to FY 1993, the incidence rate decreased by 18 percent. This decrease may be attributed to the interstate restrictions being placed on the diseased animals. Also, APHIS monitored the status of eastern and western encephalitis in the United States, and conducted surveillance for Venezuelan equine encephalitis. In addition, the Agency monitored the status of equine diseases internationally, with particular attention to African horse sickness. Also in FY 1993, APHIS continued to support cooperative research with Texas A&M University to develop more accurate and reliable diagnostic tests for equine piroplasmosis. In addition, APHIS assisted the thoroughbred industry in diagnosing and monitoring an outbreak of equine viral arteritis (EVA). EVA causes fever, conjunctivitis, edema, depression, and weakness. The first cases were identified at an Illinois racetrack, where over 160 horses were affected, but none died. The disease later occurred at several other racetracks in other States, but early diagnosis enabled officials to institute control measures, including vaccination and movement restriction.

h.) National Poultry Improvement Plan (NPIP)

NPIP, is a voluntary quality assurance program for the poultry breeding industry of the United States. Over 90 percent of all commercial egg-type breeding flocks in the United States that ship baby chicks or hatching eggs interstate participate in this program. The NPIP's mission is to prevent egg-transmitted and hatchery disseminated poultry diseases. In FY 1993, the "U.S. S. Enteritidis Monitored" program for egg-type chickens was amended to provide for screening meconium, cull chicks, and hatcher trays from egg-type chicken breeding flocks which had a positive environmental culture(s) but negative bird culture(s).

As a result of testing all participating poultry establishments, APHIS found a significant decline in SE prevalence in commercial egg-type multiplier breeding flocks compared to FY 1992, when there were 12 flocks with SE isolates. In FY 1993, no commercial poultry flocks, egg-type chickens, meat-type chickens, or turkeys, had S. Pullorum or S. gallinarum isolates. S. enteritidis (SE) was found in five commercial egg-type multiplier breeding flocks and these flocks lost their classification. Therefore, all products from these flocks were prohibited from being sold interstate. Hatching eggs from flocks with bird isolates were removed from the incubators and destroyed. Hatching eggs from flocks with bird isolates that had not been set in the incubators were diverted for pasteurization. The progeny from flocks with bird isolates were traced forward. In almost all cases, pullet growers chose to depopulate flocks with progeny from a breeding flock with a bird isolate, while others chose to have them environmentally sampled for SE.

In FY 1993, there were no isolates of M. gallisepticum (MG), M. synoviae (MS) found in primary egg-type and meat-type chicken and turkey breeding flocks. Also, there were no isolates of M. meleagridis (MM) in primary turkey breeding flocks. There was 1 egg-type multiplier breeding flock and 12 meat-type multiplier breeding flocks confirmed positive for MG. In addition, there were 6 egg-type multiplier breeding flocks and 20 meat-type multiplier breeding flocks confirmed positive for MS. Also, there were 10 turkey multiplier breeding flocks confirmed positive for MM. Arkansas became the 12th State to be classified as "Mycoplasma Gallisepticum Clean State, Turkeys" in FY 1993. Mycoplasmosis is a disease that causes annual losses of approximately $150 million. In addition, New Mexico is completing the requirement for "Pullorum-Typhoid Clean State" status. This requires 2 years with no pullorum-typhoid isolated from any poultry in the State.

i.) Poultry Diseases

In FY 1993, APHIS tested over 300 poultry flocks in 12 eastern States for avian influenza (AI). In positive cases, the Agency established quarantines, carried out clean-up activities and provided technical assistance to poultry owners. Initial funding was provided from the line item before contingency funds were allocated in March 1993 to handle the emergency. In December 1992, a Pennsylvania turkey flock was identified as having been exposed to and infected by a potentially lethal type of AI. Trace-out from this premise implicated the live poultry markets (LPM) in Philadelphia, New Jersey, and New York City. The AI virus was isolated from 11 of 41 (27 percent) LPM's in New York, 5 of 28 (18 percent) LPM's, and 1 backyard flock in New Jersey and 1 of 2 (50 percent) LPM's and 1 backyard flock in Pennsylvania. These premises were cleaned, disinfected, and retested. The last premise, a New York LPM, became free of the virus in April 1993. Trace-outs were made to over 620 farms and premises in the north, east, and mid-atlantic areas. Poultry on 13 premises showed previous evidence of exposure to this virus subtype. This virus was non-pathogenic to poultry and the surveillance and control measures were precautionary. Other surveillance in Florida identified similar virus activity in three Miami Live poultry markets.

In the summer of 1993, two additional isolations of the AI virus were made from ratites, emus, and rheas in three Texas premises and one North Carolina site. Both types were potentially lethal to poultry and one was identical to that isolated from the New England market earlier in the year. The source of all infections was associated with two exotic

bird auctions in Texas, which were held in May 1993. All contact and sale birds were traced from these auctions. Over 120 trace-outs were made to 14 States, and evidence of the virus was found on 18 premises in 8 States. These premises were placed under quarantine until they tested free. Thirty-one States have now imposed health certification for the interstate movement of ratites.

j.) Swine Health Protection (SHP)

In FY 1993, APHIS continued to strengthen compliance and enforcement by continuously monitoring swine garbage feeding operations for presence of foreign animal disease. State and Federal inspectors conducted 42,888 inspections of approximately 5,134 licensed garbage feeding premises. This compares to 42,084 inspections of approximately 4,406 licensed garbage feeding premises in FY 1992. A total of 73,238 searches for unlicensed garbage feeders was conducted in FY 1993, as opposed to 77,355 in FY 1992. These inspections and searches resulted in 691 documented violations in FY 1993, compared to 638 in FY 1992. This increased number of violations identified is attributable to the improved quality of inspections. State and Federal inspectors have improved their methods of determining when feeding operations are cooking garbage so they can be present at that time to assure compliance with the Swine Health Protection Act. As of April 1992, violators became subject to "stipulation authority" and a $500 fine if the violation occurs in a State where APHIS has primary enforcement responsibility (PER). This authority was instituted because the Agency considers it a better deterrent than the previous policy, which allowed for a $5,000 fine but also led to significant time lapse while the case was appealed to an administrative law judge. Through "stipulation authority," APHIS is able to modify unauthorized activities more rapidly. Also in FY 1993, the Agency began conducting a risk assessment of the SHP program to determine the effectiveness of the program and to look for ways to improve efficiency without increased cost. This program is becoming increasingly important as an environmentally sound alternative to the use of landfills for used food waste.

Also in the area of swine health, all States are now finished or nearly finished with initial surveillance testing for pseudorabies to identify infected herds. All infected herds are being rapidly included in a plan to eradicate the infection. Slaughter surveillance is being used in 29 States to monitor for newly infected herds in those States. As this system is improved, more States will monitor sows and boars at slaughter. The system has the potential of being the most cost-effective method of locating a newly infected herd in a low incidence area.

k.) Tuberculosis (TB)

In FY 1993, APHIS continued to monitor the incidence of TB throughout the United States. In addition, the Agency tested 4,040 TB suspect tissue submissions in FY 1993. Of these, 448 (11 percent) tested positive for TB. Only 12 of the positive cases were adult cattle with the remaining 436 being immature feedlot animals. In FY 1993, the Agency completed tracebacks on 6 of the 12 adult cattle that tested positive with only 2 cases traced to an infected herd not previously known to be infected. Traceback was completed on 388 of the 436 immature feedlot animals. A total of 326 of the 388, or 84 percent of the feedlot cases were traced to Mexico, and 62 cases were traced to

their lot of origin at the feedlot. Generally, these cases are not traced back any further than the feedlot, because of the extreme difficulty in identifying the animal's source of origin at this point.

In FY 1992, 4,162 suspect tissue submissions were tested. Of these 613, or 15 percent, tested positive for TB. The number of suspect submissions decreased by only 3 percent from FY 1992 to FY 1993; however, the number of animals which actually tested positive for TB decreased significantly. APHIS believes that this significant decrease is the result of the Mexican State of Chihuahua putting a voluntary ban on the exportation of Holstein steers in FY 1991. In FY 1992, a number of pre-ban steers still remained in the feedlots. Because these steers were heavily infected with TB, the overall number of positive cases increased greatly. By FY 1993, the majority of pre-ban steers were no longer at the feedlots, thus bringing the total number of positive cases down.

2. Animal and Plant Health Regulatory Enforcement

Under this program, APHIS employs professional field investigators and staff specialists to ensure compliance with Agency regulations through a combination of sound enforcement and strong educational efforts. Activities include, but are not limited to, investigation of violations, documentation of evidence, and development of alleged violation cases for prosecution.

APHIS regulatory enforcement field personnel perform a number of enforcement activities including conducting field investigations, tracking unresolved violations cases, and coordinating investigative efforts within the Agency. When a violation is detected, APHIS policy is to first attempt to gain voluntary compliance through discussions with responsible officials, and take appropriate enforcement action only when this approach fails, i.e., violations are recurrent or flagrant. This could include a warning or stipulation issued by the Agency. However, when an investigation reveals apparent violations, a case report and documentation are forwarded to the Regulatory Enforcement staff who then determines the manner in which an alleged violation should be addressed for enforcement action. Those cases which warrant prosecution are then forwarded to the Department's Office of the General Counsel (OGC) for administrative or criminal action. At this point, OGC reviews the case to determine if there is a legally sufficient basis to warrant pursuit of further enforcement action and, if so, prosecutes the offending party on behalf of APHIS.

At the beginning of FY 1994, the program employed 72 field investigators stationed throughout the United States, who are assigned for administrative purposes to the program's regional sector offices in Annapolis, Maryland (Northeast); Tampa, Florida (Southeast); Ft. Worth, Texas (Central); and Sacramento, California (Western).

APHIS continued to work toward improving timeliness and accuracy in handling the increasing volume of violations. Between FY 1992 and FY 1993, the Agency experienced its most significant increase in the number of formal cases from 1,836 in FY 1992 to 2,697 in FY 1993. Since FY 1991 however, the average number of formal cases filed has risen 10 percent. Increased enforcement activity is also reflected in the number of civil penalties issued, which rose significantly from 1,428 in FY 1992 to 2,012 in FY 1993. In this regard, the Agency has made important progress in tracking cases through the implementation of a headquarters-

based online computer system. This system enables all investigators regardless of where stationed to enter data directly into the system with a laptop or personal computer.

APHIS regulatory enforcement personnel successfully conducted an extensive investigation of plant quarantine violations involving false phytosanitary certificates being used to move produce between Mexico, Texas, and California. This investigation involved close cooperation with the Government of Mexico to obtain original phytosanitary certificates to compare to the alleged false certificates.

Also during FY 1993, the program successfully completed a lengthy animal care investigation concerning fraudulent recordkeeping. This investigation resulted in prison sentences, home detention, and supervised probations for the violators.

In another case, RE personnel successfully conducted an extensive undercover investigation concerning fraudulent screening of livestock blood samples for brucellosis. This investigation resulted in a $39,000 fine against a Mississippi livestock market operator.

3. Fruit Fly Detection

In FY 1993, APHIS continued to support and conduct cooperative fruit fly detection surveys in Alabama, Arizona, California, Florida, Georgia, Louisiana, Mississippi, New Mexico, South Carolina, and Texas, as well as Puerto Rico and the U.S. Virgin Islands. The purpose of these surveys is to detect new infestations of Medfly and other exotic fruit fly species.

During the past 5 years, outbreaks of various fruit flies have occurred almost annually in the State of California, especially in the Los Angeles basin. Currently, APHIS and the California Department of Agriculture are cooperating in a Medfly eradication project located in this region. Medfly outbreaks were eradicated from San Diego County in July 1993, and from Santa Clara County in October 1993.

APHIS and the State of California are also conducting a cooperative Oriental fruit fly eradication project in Los Angeles County in response to Oriental fruit flies having been captured in early September 1993. An Oriental fruit fly outbreak in San Diego County was declared eradicated in June 1993.

Other exotic fruit flies captured during FY 1993, as part of the detection program include: guava fruit fly, peach fruit fly, and the West Indian fruit fly.

4. Pest Detection

In FY 1993, APHIS and cooperators in the Cooperative Agricultural Pest Survey (CAPS) conducted surveys and managed the data collected. Data were managed in the National Agricultural Pest Information System (NAPIS) and in databases operated by CAPS cooperators. Data from these systems were used to provide Federal and State officials, and the private sector, with information on issues related to exotic pest detection, enhancement of agricultural exports, and management of cooperative pest control programs. APHIS provided approximately $25,000 per State to the CAPS cooperators in support of this program. Cooperators included State Land Grant Universities or State Departments of Agriculture in 49 States and Puerto Rico.

A pilot project to evaluate capabilities for detection of an exotic bark beetle proved very successful. A small array of traps near a high risk site detected the spruce bark beetle. The high-risk material on the site was destroyed and a cooperative trapping program with the Forest Service and others was initiated. No further detections were made in an expanded, intense trapping array. It appears that a potential introduction of this serious pest was averted.

Detection and/or delimiting surveys were conducted for chrysanthemum white rust, apple ermine moth, cherry bark tortrix, Africanized honeybee, brown citrus aphid, pine shoot beetle, necrotic strain of potato virus-Y, Asiatic rice borer, cabbage moth, Caribbean fruit fly, Egyptian cotton leafworm, European cherry fruit fly, European grape berry moth, false codling moth, grape vine moth, large yellow underwing, light brown apple moth, maize borer, melon fly, peach fruit fly, pear leaf blister moth, plum fruit moth, Queensland fruit fly, rice cutworm/cotton leafworm, silver Y moth, Summer fruit tortrix, and other exotic species. Surveys were also conducted for biological control organisms and for their target species. Data were managed for these species as well as for gypsy moth, pink bollworm, imported fire ant, Medfly, grasshopper, and other cooperative program pests.

Operating features of the NAPIS database and the NAPIS data files continued to be improved. This led to improved performance and decreased cost of operation for the system. Annual direct cost of system operation was reduced more than 5 percent from the previous year. Operating speed increased 100 percent resulting in savings of time for the persons entering and retrieving data. The number of system users increased by approximately 10 percent.

Computerization of field data collection continued, resulting in improved ability to provide information more rapidly. The use of geographic information systems was initiated.

## PEST AND DISEASE MANAGEMENT PROGRAMS

Current Activities: In cooperation with the States, APHIS works to improve the general health of our Nation's multi-billion dollar agriculture industry through management techniques designed to eradicate harmful pests and diseases, or, if eradication is not feasible, minimize their economic impact. Endemic diseases and pests are monitored through surveys to detect their location, and through inspections aimed at preventing their spread into noninfested parts of the country. Specific program efforts include:

Plant Pests and Diseases: APHIS Plant Protection and Quarantine (PPQ) Unit coordinates a number of programs which actively control or eradicate plant pests. Various tools are used, including pesticides, traps, and natural predators in order to control boll weevil, grasshoppers, gypsy moths, noxious weeds, and witchweed.

In order to prevent the spread of plant pests into noninfested areas, APHIS develops and enforces regulations concerning the movement and quarantine of plant materials. Extensive investigation and methods development are conducted to determine the most feasible and environmentally sound methods of dealing with golden nematode, imported fire ant, pink bollworm, and other miscellaneous pests for which there is no viable control method.

Animal Pests and Diseases: The Veterinary Services Unit of APHIS implements disease control and eradication programs involving testing, quarantine, treatment, and depopulation of infected animals. Brucellosis, cattle ticks, pseudorabies, and tuberculosis are program examples. The Animal Damage Control program protects American agriculture from detrimental predators through identification, demonstration, and application of the most appropriate methods of control.

Selected Examples of Recent Progress:

1. Animal Damage Control (ADC) Operations

Protecting American Agricultural Resources

The blackbird hazing and cattail management programs in North and South Dakota continued during FY 1993. Total requests for assistance were down from the previous year, primarily because of excessive rainfall. During FY 1993, ADC programs in North and South Dakota received 556 requests for aerial hazing activities. The goal of the hazing program is to scare blackbirds away from commercial sunflower fields, thus minimizing damage to the crop. During FY 1993, over 2,000 acres of cattails were treated with an EPA-approved herbicide. The cattail management program's goal is to reduce the amount of roosting and nesting habitat by controlling cattails in cattail-choked wetlands. By making the habitat unattractive, blackbirds are forced to seek suitable roosting and nesting sites away from sunflower fields. An additional benefit of controlling cattails is that by doing so, the habitat is improved for waterfowl.

ADC has continued its interagency agreement with the National Agricultural Statistics Service (NASS) to determine the magnitude and extent of wildlife damage to various agricultural crops. During FY 1993, NASS officials surveyed farmers in ten midwestern States to determine the extent of wildlife damage to field corn. Results from this survey will be available in early 1994.

In FY 1993, ADC program officials worked with representatives from Utah State University at Logan, Utah, to establish a new education program in wildlife damage management, and provided key funding for it. The program became a part of the Jack Berryman Institute for Wildlife Damage Management, which began operation in late 1992. The institute will become an integral part of the Utah State Department of Fisheries and Wildlife. Its main objectives are to provide educational opportunities to current and future wildlife damage management professionals, and to reward professional excellence.

A cooperative program between the North Carolina Resources Commission and ADC was implemented during FY 1993 in six North Carolina counties to reduce damage caused by expanding beaver populations. The program was initiated in response to numerous requests in those counties for assistance.

Protecting Human Health and Safety

ADC continued to provide assistance to John F. Kennedy International Airport in New York City. This is the third consecutive year APHIS has conducted operational gull control at the airport. As a result of the program, laughing gull bird strikes at the airport have been reduced by

68 percent, 92 percent, and 89 percent during FY's 1991, 1992, and 1993, respectively. Relocation of the laughing gull colony's nesting habitat has been identified as the optimal long-term solution to the problem.

APHIS continued to work with the Texas Department of Health to seek solutions to the problem of canine rabies which has spread to a 12-county area in south Texas. This particular strain of rabies originated in Mexico among feral dogs, and has spread during the past 3 years into south Texas, where both coyotes and feral dogs are now transmitting the disease. ADC is working with State and County officials to reduce coyote populations in and around densely populated areas where rabies has been found.

Protecting Natural Resources

The program continues to place emphasis on the protection of threatened and endangered species. During FY 1993, ADC personnel responded to requests to help protect the piping plover from gull predation in New York; the least tern and piping plover from mink predation in Nebraska; the Hawaiian stilt, moorhen, and coot from feral dog, cat, and pig predation in Hawaii; the desert tortoise from raven predation in California; and the snake river sockeye salmon from gull predation in Washington.

The Supplement to the Draft ADC Environmental Impact Statement (EIS) was released for public comment from January 22, 1993, through April 28, 1993. Approximately 95 comments were received and analyzed, prompting a determination by APHIS that additional work on the alternatives and economic analysis sections was necessary. The EIS is expected to be completed in early February 1994, with the Record of Decision to be signed 30 days later.

APHIS has been working with the government of Guam and the U.S. Department of the Interior to develop a cooperative program for control of the brown tree snake on the Island of Guam. The pest is widely established on Guam and has caused the virtual elimination of many avian species, including endangered species. Because there are no predators of this snake on Guam, it has continued to multiply rapidly. There is growing concern that the snake may disperse to Hawaii, and consequently to the continental United States, unless immediate control measures are taken.

A cooperative program for control of the brown tree snake on Guam began in April 1993, with establishment of a district office there. Program supervision is being provided by the Washington State office of ADC. In addition to APHIS, the Government of Guam and the Office of Territorial and International Affairs are helping to fund this effort. The program's goal is to establish snake-free zones around shipping facilities by trapping and removing snakes and making the habitat unattractive for the pest at shipping sites. The Department of Defense recently provided APHIS with an additional $1 million for a cooperative brown tree snake control program at nine military locations in Guam and Hawaii. Work under the latter agreement began in August 1993, and will continue through the end of FY 1994. Direct control methods to be employed will include traps, glue boards, fencing, electrical barriers, detection dogs, and habitat modification.

2. Biological Control

Euonymus Scale

Euonymus plants are a versatile and attractive group of ornamentals that are grown in many parts of the United States. Many types of euonymus are susceptible to a small insect pest commonly known as euonymus scale. Without treatment, severe infestations of euonymus scale can kill all or part of the plant. In fact, because these scale attacks are so widespread and so difficult to treat, this ornamental is declining in popularity.

APHIS completed a second (final) year of baseline data surveys in 16 Northeastern and Southeastern States. These second year surveys were performed on a subset of the FY 1992 survey areas. First year surveys were conducted in 10 Central and Western States. Second (final) year surveys are projected for FY 1994 in these 2 regions.

Results indicate that the pest is most prevalent in States east of the Great Plains. Approximately 20 percent of the plants examined were heavily infested with scale. The predator, Chilocorus kuwanae has been found in most States along the Gulf and Atlantic coasts. A second year of data was taken to unequivocally confirm observations of the previous year.

APHIS is rearing two predator species and one parasite species from China acquired through cooperative efforts with the University of Massachusetts and Texas A&M University. APHIS and cooperators released these natural enemies into field insectaries and other protected locations in California, Indiana, Massachusetts, Michigan, New Jersey, and Tennessee. These sites will be used as future collection sites to provide natural enemies for redistribution. Although some releases were made in FY 1991 and 1992, FY 1993 was the first year that significant quantities of euonymus scale natural enemies were released.

Recovery surveys were finished at sites where surveys were not completed in FY 1992. The purpose of these recovery surveys was to determine the presence or absence of natural enemies released in previous years.

Baseline data surveys and establishment evaluation surveys yielded several new records in FY 1993. C. kuwanae was found in 13 out of 80 baseline data areas surveyed. Several finds reconfirmed records from FY 1992 surveys. New records include a New State Records in Oklahoma, and New County Records in Alabama and Tennessee. Cybocephalus were found in 4 of the survey areas. Establishment evaluation surveys yielded C. kuwanae at 3 out of 11 sites surveyed.

Cereal Leaf Beetle

Cooperators at the USDA, ARS, European Biological Control Laboratory supplied APHIS with limited numbers of the egg parasite Anaphes flavipes. These were increased at the National Biocontrol Laboratories in Niles, Michigan, and subsequently released at selected sites in Idaho, Montana, and Utah where this pest has recently invaded. Additional release stock was also obtained from locations in North and South Carolina. Field insectaries were established at four locations in North Carolina and Utah for receiving larval parasites in FY 1994. Survey samples indicate that the larval parasite Tetrastichus julis is established in parts of the Western United States range of cereal leaf beetle as well as in its Eastern range. This find in the West is

significant because I. julis was released in previous years, but not recovered. This natural enemy is one of the more significant agents proven to control the cereal leaf beetle in the midwest.

European Corn Borer

In FY 1993, APHIS rearing laboratories produced approximately 1.2 million Trichogramma ostriniae, an egg parasitoid introduced from China, to meet known cooperator requests for release material. The Trichogramma parasites were released by university cooperators in research programs to control the corn borer in New York and Massachusetts. This project will not be continued in FY 1994.

Russian Wheat Aphid (RWA)

The RWA is an invading pest of wheat, barley and other small grains currently found in 15 States and Canada. This pest has become a significant economic threat to agriculture affecting 53.6 million acres of wheat and 7.3 million acres of barley within those 15 states alone and presently has caused up to a 70 percent yield reduction in some areas. In FY 1993, APHIS reared and cooperatively released approximately 3 million exotic parasites and predators to promote biological control against the RWA. Releases were made in at least one site in each of the 9 Western States infested by this aphid. Special releases (i.e., releases that require intense manipulation and monitoring of the crop, pest, and beneficials) were also made with the assistance of USDA, Cooperative State Research Service scientists in California, Idaho, and Texas. Extensive surveys were conducted in fields that received release material during 1989-1991 (17 states) to determine the presence and impact of any exotic or native natural enemy species.

APHIS is proceeding to implement the recommendations made during a FY 1993 multiagency meeting on evaluation. Specifically, impact evaluation will be pursued in FY 1994 as a cooperative venture in 3 to 5 geographic areas over a 2 to 3 year period. APHIS and ARS jointly supported significant cooperative efforts on the taxonomic identification and impact assessment of released species as well as jointly conducting intense releases in Colorado.

Colorado Potato Beetle (CPB)

Mass production of biological control agents of CPB enabled release of approximately 670,000 agents for demonstration of the effectiveness of a biological control based potato crop management system. Approximately 130,000 Coleomegilla maculata, a coccinellid predator, and 130,000 Perillus bioculatus, a pentatomid predator, were released by cooperators during the first year of studies in Virginia. Approximately 114,000 Perillus bioculatus, and 296,000 C. maculata, were mass-produced by APHIS for release by cooperators in Delaware. Due to increased pesticide resistance and environmental contamination considerations, an evaluation of the economic and environmental benefits of this crop management system is in progress.

Sweetpotato Whitefly (SPW)

The SPW continues to cause significant losses to American agriculture. In 1992, the loss to cotton alone was approximately $200 million. Until effective natural enemies are found, imported, and released for control application, an increasing amount of fruits and vegetables will be destroyed, creating shortages and higher prices nationwide. In FY 1993,

a year-long survey for the SPW and its natural enemies was conducted in the southern United States. Of the seven species of native parasites (five Encarsia and two Eretmocerus) discovered, all but one appeared to be widespread. Parasitization rates ranged from a low of 20 percent in spring to a high of 47 percent in winter in greenhouses and nurseries. SPW generally were less abundant where they occurred with native parasites, and a moderate level of density-dependence was noted. Species of exotic natural enemies now in production at Mission Biological Control Laboratory in Texas, include one coccinellid and seven aphelinids. DNA fingerprints have been obtained by rapid, polymerase chain reaction techniques. A total of 168,000 Encarsia formosa and 105,000 Eretmocerus mundus were produced for release in California and Texas. An additional 40,000 parasites were shipped to researchers in the United States and Mexico.

Leafy Spurge

Leafy spurge has taken over millions of acres of western grazing land. This aggressive, exotic perennial weed has greatly reduced the carrying capacity of the range. It readily out-competes desirable native vegetation. Because of irritating chemicals in the weed, cattle and horses generally do not graze on it, and they even avoid nutritious forage growing nearby. The damage costs ranchers an estimated $35 to $45 million per year. Several species of flea beetles, Aphthona spp., are now available for collection and redistribution from established populations in the United States and Canada for the control of leafy spurge. In FY 1993, APHIS collected 275,542 beetles within the United States for redistribution to new locations. In addition, 206,672 beetles were collected from Montana field insectary sites. Insects were released on leafy spurge at field insectary sites at 164 locations in 15 midwest and western States. These releases were in cooperation with State departments of agriculture and other State and Federal cooperators. Previous flea beetle release sites now show significant reduction of leafy spurge at these locations. APHIS designed studies to provide information regarding technology transfer and how to manage leafy spurge using alternatives to chemical control.

Diffuse and Spotted Knapweed

Ranchers constantly need to protect range plants that can support livestock against competition from unpalatable, inedible, and low-nutrient range weeds. Knapweeds are among these scourges. There are 25 knapweed species in North America. APHIS is involved in redistributing biological control agents throughout weed-infested states. At present, redistribution projects employ a number of insect species and are directed against spotted and diffuse knapweeds. These introduced weeds are serious pests of pastures and rangeland in the western United States and Canada.

In FY 1993, through cooperative efforts with scientists in Europe, APHIS successfully collected and cleared, through quarantine in Mission, Texas, nine species of biological control agents for knapweeds. These insects were shipped to and released at several field locations in various States. Additionally, collections of eight insect species from APHIS insectaries, now established in the United States, provided insects for redistribution to knapweed infested areas. The releases are for the establishment of field insectary sites on public lands for future redistribution of natural enemies within the respective States. Once these insectary sites are fully functional, individual State Department of Agriculture and County Weed Boards will make distribution to land managers and private owners. The benefit of this redistribution

effort is nationwide in that the environmental concerns are being met through stewardship activities of all personnel involved. A total of 76,232 insects were collected domestically, redistributed, and released at 69 locations in 12 States. The promising complexes of approved biological control agents for knapweeds include insects that feed on the foliage, eliminate seed production, and destroy roots.

3. Boll Weevil

Elimination of the boll weevil is a key component to effective cotton production in the future. Regions where boll weevil has been eradicated have realized a reduction in insecticide use ranging from 40 to 80 percent. This insect control/insecticide reduction translates to lower production costs, greater yields, and a cleaner environment. Estimates show that for every $1 (Federal and State) spent in eradication, the industry accrues $12 in benefits by eliminating the weevil from the treated area.

Studies indicate that the total annual direct economic benefits from increased yields, reduced insect damage, and lower insect control are $81.6 million for the southeastern States participating in the eradication program. The annual losses for the States still not participating in the boll weevil eradication program are estimated to be $546 million. This calculation is done assuming a conservative estimate of 10-percent crop loss in these States.

High Plains Boll Weevil Control Program

The boll weevil program treated about 1,357,000 acres in 1993, compared to about 453,000 acres treated in 1992. The increase in treated acres was due to unusually high weevil counts, caused by abnormally high over-wintering populations. In FY 1993, the program succeeded protecting over 3 million acres of weevil-free cotton on the High Plains of West Texas and New Mexico. This was the second season in which the program used a satellite navigation and guidance system for aircraft treatment, significantly reducing the need for ground personnel.

Southeast Boll Weevil Eradication Program

The southeast eradication program continues to be successful. In FY 1993, Georgia, south Alabama, and Florida were involved in activities to confirm eradication. Northeast Alabama entered its first full season of program activity, while northwest Georgia and central Alabama joined the expanding program. Cotton growers in north Alabama and adjacent areas of central Tennessee and East Mississippi, voted to enter the program. The growers of all the expanding areas will pay 70 percent of the program costs.

The cooperative eradication program involved approximately 1,515,835 acres. Approximately 615,426 of those acres are in the post-eradication phase in Virginia, North Carolina, and South Carolina. The cumulative number of acres treated in 1993 was 1,528,101, which is significantly higher than the 390,945 acres treated in 1992. The increase was due to expansion into new areas in Alabama and Georgia and unusually high weevil populations in adjoining, non-program areas.

| | 1991 | 1992 | 1993 |
|---|---|---|---|
| Total acres treated | 224,442 | 390,945 | 1,528,101 |
| Total weevils trapped | 67,921 | 153,347 | 1,489,038 |

Southwest Boll Weevil Eradication Program

In FY 1993, post-eradication activities began in southern California and continued in most of Arizona. About 380,000 acres of cotton were planted in Arizona, about 2,400 acres in nearby Sonoita, Mexico, and 1,600 acres in Caborca, Mexico. The acres treated fell, from 4,506 in 1992 to 3,928 in 1993. Ninety-eight percent of these treatments were applied in Caborca, Mexico. As weevils are eliminated in Caborca, the risk of reinfestation in Arizona and California decreases. In addition, APHIS maintained surveillance activities in Mexico to ensure that the boll weevil did not re-infest eradicated areas.

| | 1991 | 1992 | 1993 |
|---|---|---|---|
| Total acres treated | 420,171 | 472,000 | 384,000 |
| Total weevils trapped | 1,065 | 1,346 | 2,448 |

4. Brucellosis

Bovine

In FY 1993, APHIS protected the cattle and swine industries from brucellosis at an estimated cost of $33 million. In the absence of a program, losses in the cattle industry alone could exceed $900 million within 10 years.

As of September 30, 1993, 32 States, as well as Puerto Rico and the U.S. Virgin Islands, were designated Class Free. Seventeen States were in Class A status, and one state, Texas, was in Class B. During FY 1993, Oregon advanced to Class Free status.

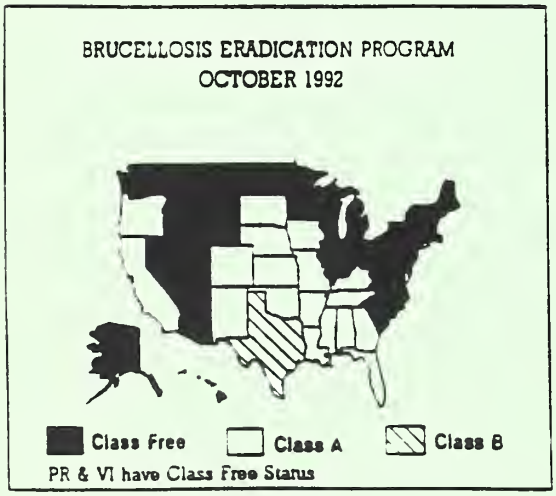



Exhibit 1 BRUCELLOSIS STATE CLASS STATUS AS OF OCTOBER 1992.

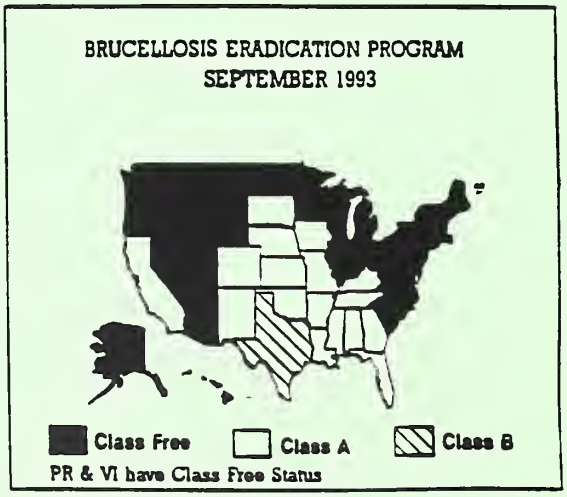



Exhibit 2 BRUCELLOSIS STATE CLASS STATUS AS OF SEPTEMBER 1993.

The following table shows data for FY 1992 and FY 1993 in various brucellosis categories, the difference between the 2 years, and their percentage changes. Of the 14.4 million cattle tested for brucellosis in FY 1993, 2.5 million were sampled through herd tests on farms or ranches and 11.8 million were tested under the Market Cattle Identification program. Of the 601 reactor herds in FY 1993, 259 were located in States that were in Class A status at the end of the year and the remaining 342 were found in the one Class B State. As the number of

infected animals and herds decreases, it is vital that the number of cattle tested increases, so that a strong monitoring and surveillance program is maintained.

| Category | FY 1992 | FY 1993 | Diff. | % Change |
|---|---|---|---|---|
| Herds Under Quarantine for Brucellosis | 415 | 283 | -132 | -32% |
| Number of Cattle Tested for Brucellosis | 15,100,000 | 14,400,000 | -700,000 | -5% |
| Number of Reactors | 13,300 | 16,746 | +3,446 | +26% |
| Number of Reactor Herds | 744 | 601 | -143 | -19% |

At the end of FY 1993, 9 dairy herds were under quarantine in the United States, with 6 of these in Texas. A task force made up of APHIS personnel, State employed veterinarians, and livestock inspectors in California's Chino Valley continued to make outstanding progress during the year, and have eliminated infection from the area's large dairies. California expects to apply for Class Free status in the near future.

A committee with representatives from the Interior Department, U.S. Forest Service, and the State of Montana is working on an Environmental Impact Statement on the brucellosis problem in the greater Yellowstone National Park area. APHIS continued to provide technical advice and options for eliminating brucellosis from the park.

In FY 1993, the Montana Game and Fish Department intercepted 72 bison as they were leaving Yellowstone National Park. Interceptions were made to prevent possible exposure of domestic livestock and other susceptible animals to brucellosis. Serological testing performed by Montana's diagnostic laboratory on the bison found 26 percent were negative, 63 percent were positive, and 11 percent were suspect. Tissues from 12 positive animals were collected at slaughter and 2 were culture positive for brucella abortus, the organism that causes brucellosis. A culture positive result means that the brucella abortus organism has been successfully isolated in a random sample of the infected animal.

The Agency continued to fund the vaccination of elk calves on 12 Wyoming feeding grounds. Funding was also provided for research at Texas A&M University on the transmission of brucellosis through embryo transfer.

Swine Brucellosis

The State-Federal-industry cooperative Swine Brucellosis (SB) eradication program is swiftly approaching its goal of complete eradication by December 1996. In FY 1993, Kansas and New Jersey became the 41st and 42nd States to achieve validated SB-free status. Eight States (Alabama, Arkansas, Georgia, Florida, Louisiana, Oklahoma, South Carolina, and Texas) remain non-validated with five States in Stage I and five States in Stage II. APHIS is encouraging these non-validated States to survey at least 10 percent of their breeding swine annually to detect SB.

SB prevalence is low, with only 51 infected herds, and the disease is primarily located in the Southeastern United States and Texas. Florida is the last major problem State with 25 infected herds as of June 1993.

Florida has nearly as many infected herds as the total number found in all other States combined. As of June 1993, 72 newly infected herds have been disclosed among all States, compared with 79 in June of 1992. Contributing to the disease's prevalence is the reluctance of owners to depopulate infected herds and the continual reinfection from feral swine in areas where swine brucellosis exists. Even though prevalence is low, there are still significant human health concerns. Workers at a North Carolina packing plant experienced a human brucellosis epidemic as a result of contact with infected hogs. Even after implementing all worker safety precautions established by the Occupational Safety and Health Act, there were still new cases. The only way to eliminate swine occupational hazard is to eliminate swine brucellosis from the domestic herds.

Also in FY 1993, APHIS coordinated conferences with State, Federal, and industry officials to discuss acceleration of the SB programs in States with feral swine. This involved representatives from Arkansas, Missouri, Oklahoma, Texas, Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina, and Tennessee. Industry participation consisted of swine producers and officials from the National Pork Producers Council, State producer organizations, and the American Farm Bureau Federation. After these conferences, the States submitted plans for accelerated SB eradication programs to APHIS. At the October 1993 United States Animal Health Association (USAHA) meeting, a resolution was passed encouraging innovative solutions for depopulating all infected herds by the end of FY 1994. APHIS is working with the swine industry to accomplish this goal.

5. Cattle Ticks

The cattle tick program is a cooperative Federal-State-industry effort to prevent the re-establishment of the cattle fever ticks, Boophilus annulatus and B. microplus in the United States; to maintain a permanent buffer zone along the Texas-Mexico border; and to eradicate the tropical bont tick, Amblyomma variegatum and the cattle fever tick, B. microplus, from Puerto Rico and the U.S. Virgin Islands.

In the continental United States, the program is concentrated along the Texas-Mexico border, where the Rio Grande serves as a natural barrier. During FY 1993, tick infestations were controlled through the use of a permanent quarantine zone, with systematic patrols, and inspections carried out by health inspectors on horseback. All livestock crossing the border and entering or leaving the quarantine zone were examined and treated for ticks to eliminate the risk of cattle ticks becoming established in the United States. As a result of this cooperative effort, cattle ticks have not become established beyond the original quarantine line which has been in place since 1936. By the end of FY 1993, there were ten infested premises under quarantine. Seven of these were in the tick eradication quarantine zone and three were in the free zone. All infested premises have been placed under quarantine and the livestock have been dipped, reinspected, and vacated from their infected pastures.

The tropical bont tick, A. variegatum, was first discovered in St. Croix, U.S. Virgin Islands in 1967 and in Puerto Rico in 1974 and was thought to be eradicated in FY 1991. However, tropical bont ticks were rediscovered in Puerto Rico in FY 1992 and in St. Croix in FY 1993. The premises involved in Puerto Rico remain under treatment with no new infestations. The affected premises in St. Croix were immediately

quarantined and livestock placed under treatment. Epidemiological investigations determined that the infestation on St. Croix was limited to one area north of Frederiksted.

In FY 1993, progress in the Puerto Rico cattle fever tick eradication program remained steady, with a 3-percent increase in the number of bovines in tick-free status. There has been little change in the total number of bovines pending treatment. At the end of FY 1993, about 6 percent of the total bovines were pending treatment.

6. Golden Nematode (GN)

In FY 1993, new infestations of GN were detected in 3 fields, for a total of 56 infested fields. All new detections are within regulated areas in New York. The State now regulates about 5,000 acres that had been infested with GN in the past, of which 206 are actively infested. The State implemented regulations to require the use of resistant varieties on land that has been or is currently infested with GN. In addition, potato growers in non-infested areas continue to increase the use of resistant varieties voluntarily. If GN becomes widely established in the United States, potential crop losses are estimated at no less than 10 percent of the $2.2 billion potato industry.

7. Grasshopper and Mormon Cricket

In 1993, APHIS treated 85,000 acres compared to 236,000 in 1992. Each fiscal year APHIS conducts surveys in each of the Western States and a rangeland outlook map is developed and sent to cooperators for their information. In 1993, the survey was conducted and indicated that a possible 28,007,867 acres, which is approximately the same as the previous year, would be considered as heavily infested with grasshoppers and would require treatment. However, grasshopper populations in 1993 were very low due to the cool wet weather in the Western States. In FY 1994, APHIS plans to produce this map using Atlas Geographic Information Systems (GIS) computer base software. The Atlas GIS software improves the precision of the map by identifying the specific locations that may require treatment.

The following table shows acreage treated during FY 1993:

| State | Rangeland | Cropland | Total |
|---|---|---|---|
| Colorado | 638 | 0 | 638 |
| Idaho | 4,404 | 0 | 4,404 |
| Montana | 0 | 0 | 0 |
| Nevada | 2,117 | 0 | 2,117 |
| North Dakota | 59,298 | 864 | 60,162 |
| Oregon | 11,200 | 0 | 11,200 |
| South Dakota | 4,840 | 0 | 4,840 |
| Utah | 1,288 | 0 | 1,288 |
| Wyoming | 6 | 0 | 6 |
| Total | 83,791 | 864 | 84,655 |

APHIS continues to improve the HOPPER computer software program to be used by Federal and State land managers, and county agents when making decisions on grasshoppers control techniques. The HOPPER computer software identifies the technique that is most economically viable in each particular location based on weather conditions, type of

grasshopper, and economics. The software program was improved and the finalized version will be completed and made available to land managers in April 1994.

In FY 1993, the Grasshopper Integrated Pest Management program (GHIPM) developed new biocontrol options, such as Scelio spp and Entomophaga praxibuli. Both of the organisms are being reviewed by the APHIS Biological Assessment and Technical Support Staffs for environmental evaluation. In addition, the program developed an alternative chemical tool (Dimilin) as a candidate for registration. The program also developed a "Grasshopper Species Field Guide" and a "GHIPM User Handbook" containing a compilation of IPM technologies, for use in facilitating technology transfer. The program continued to make improvements in bait technology, active ingredient levels, and application rates. The program also initiated preventative "Hot Spot" treatments where localized outbreaks of 10,000 acres or less are treated before a devastating economic threshold is reached.

APHIS is working with a private company to obtain registration from EPA for an endemic plant pathogen Beauveria bassiana. This organism may be available within a year for controlling grasshoppers.

8. Gypsy Moth (GM)

Damage caused by GM varies with natural fluctuations in population levels and the rate of natural spread along the leading edge States. GM defoliation decreased from 2.4 million acres in FY 1992 to an estimated 2 million acres in FY 1993. As GM spreads, it will primarily attack hardwood trees with possible defoliations in excess of 50 percent resulting in weakened trees. Weakened trees experience a 30- to 50-percent reduction of radial growth which translates into at least 10-percent yield losses and increased production costs in the timber industry. In addition, trees that have been weakened by multiple defoliations are subject to heavy mortality. Although not preferred by the larvae, pines and hemlocks are subject to heavy defoliation during outbreaks and are more likely to be killed than hardwoods. A single, complete defoliation can kill 50 percent of pine trees and 90 percent of hemlocks in the infested areas. Losses will continue to increase as the generally infested areas expand along the leading edge.

The Agency's goal is to prevent the artificial, long distance movement of GM life stages to areas currently uninfested. APHIS accomplishes this goal by regulating the movement of logs, mobile homes, nursery stock, and outdoor household articles (OHA) from infested areas and eradicating isolated infestations when they do occur. In FY 1993, APHIS, in cooperation with State agricultural inspectors, conducted inspections and certified over 10,000 shipments of non-OHA regulated articles. Due to the large number of household moves out of the generally infested area (estimated to exceed 250,000 per year), self-inspection is allowed to supplement State and Federal resources for the regulatory control of OHA movement. Consequently, OHA movement represents the biggest risk for artificial spreading of GM. Up to 90 percent of all new isolated GM infestations are attributed to the movement of infested OHA's. APHIS also continued GM trapping and survey activities in the uninfested portions of the United States in an effort to detect isolated populations.

In FY 1991, the Asian Gypsy Moth (AGM), a very serious exotic pest, was detected in Washington and Oregon. FY 1993 was the second year of post-treatment survey to confirm eradication of AGM in Washington and

Oregon. Negative results of AGM testing from FY 1993 trappings will result in a declaration of eradication. However, in the summer of 1993, AGM was detected in survey traps in the Sunny Point, North Carolina port area. The AGM was re-introduced to the United States by a military vessel that came from Nordenham, Germany, on July 4, 1993. Trapping results indicated that the AGM had spread to areas as far as 30 miles from the Sunny Point terminal. APHIS, in cooperation with the Forest Service and the State of North Carolina, made an assessment of the extent of the AGM infestation to determine the feasibility and the financial needs of an eradication project.

9. Honey Bee Pests

In FY 1993, Texas had 68 counties under quarantine for Africanized honey bee (AHB). APHIS placed and serviced 400 traps to detect the spread of AHB in Texas. These traps are used to determine how far the AHB has migrated. The migration of the bees is closely monitored to assess the potential effect that the bees may have on agriculture. One trap line from Waco to Eastland along Highway 6 was taken over by Texas. All other APHIS traps were removed on September 30, 1993. The APHIS AHB identification laboratory in Harlingen, Texas, remained in operation during the year until it was closed permanently on September 30, 1993.

APHIS assisted the Arizona Department of Agriculture in establishing AHB trap lines along the Mexican Border and around Phoenix and other cites in Arizona. APHIS also loaned essential identification lenses to Arizona and New Mexico which were threatened by AHB invasions in FY 1993. Arizona intercepted AHB 23 times in FY 1993 in seven counties.

APHIS continues serving on the USDA Interagency Technical Working Group for Honey Bee, and in 1994 will chair this group. APHIS provided technical assistance to Texas, Arizona, and Alabama on AHB. APHIS has established an Assistant Operations Officer position in Phoenix, Arizona, that will assist the States with honey bee problems.

APHIS provides the National Agricultural Pest Information System to record all AHB survey information for availability to a wide range of users. By using information from this data base, APHIS readily provided infestation and expansion maps upon request. This data base is still in place.

10. Imported Fire Ant (IFA)

In FY 1993, APHIS assisted the State of Maryland in eradicating the IFA from a shopping mall in Frederick, Maryland. In addition, APHIS added 29 counties to the regulated area in the following States: Arkansas, Georgia, Mississippi, Oklahoma, South Carolina, and Tennessee. Survey work conducted in those States indicated that IFA had moved to those counties.

APHIS assisted with the registration of Tefluthrin by the Environmental Protection Agency to be used in the potting mixture for potted plants for shipment out of the regulated area. Tefluthrin is being reviewed by the APHIS Environmental Assessment staff for environmental concerns. In addition, APHIS revised the quarantine to include Bifenthrin in a three-tiered treatment to be used in the potting mixture for potted plants.

APHIS revised the IFA quarantine map for distribution to the States, within the Agency, and the nursery industry. APHIS also revised "A Guide for Nursery Operators" for distribution to the nursery industry.

11. Miscellaneous Plant Pests and Diseases

In the international arena, APHIS facilitated surveys for several agricultural pests by offering technical advice to countries throughout the Caribbean, Central America, and Mexico. In FY 1993, APHIS conducted surveys for brown citrus aphid and citrus tristeza in the Caribbean.

Brown Citrus Aphid (BCA)/Citrus Tristeza Virus (CTV)

In FY 1992, an APHIS survey confirmed that BCA, the most efficient vector of CTV, occurs in Puerto Rico. In response to the discovery, APHIS in cooperation with other Commonwealth and Federal agencies conducted extensive surveys throughout Puerto Rico and the U.S. Virgin Islands. BCA was found to be well established in these locations. Other surveys indicated that BCA is established in the Dominican Republic and Haiti. Surveys were conducted in the Bahamas and Florida and the results were negative.

CTV causes three different disease conditions in citrus. The mild type, known as "Mexican lime vein clearing" type, is the one found in Puerto Rico. The moderate type, known as the "quick decline" type, is already present in parts of California and Florida. The third disease condition, known as the "severe stem pitting" type, is found in Bermuda.

The New Pest Advisory Committee recommended placing a high priority on development of biological control mechanisms for BCA. A pest alert for increased inspection of host material at ports of entry was issued.

In FY 1993, an International Workshop on BCA and CTV in the Americas was held in Venezuela to present research results and management strategies. In addition, APHIS coordinated a workshop to develop a list of actions and responsible parties should BCA/CTV be introduced into the U.S. mainland. APHIS is also developing an interagency technical work group to manage a BCA/CTV outbreak.

Japanese Beetle

There are two aspects to the Japanese beetle program. One is the regulation of hazardous airports (airports with high incidences of Japanese Beetle) to prevent the spread of Japanese beetles to noninfested areas. The other aspect is APHIS working with other Federal agencies and foreign countries to implement a regulation harmonization plan.

In FY 1993, the Agency treated airplanes at the Standiford Field Airport (Kentucky), Baltimore-Washington International Airport (Maryland), McGuire Air Force Base (New Jersey), Dover Air Force Base (Delaware), Toledo International Airport (Ohio), Philadelphia International Airport (Pennsylvania), Rickenbacker Air Force Base (Ohio), and Port Columbus International Airport (Ohio).

In FY 1993, APHIS presented a Japanese beetle harmonization plan to Canada for their review and approval. This plan will establish the harmonization of Japanese beetle regulatory activities between the

United States and Canada. The Agency is still negotiating the terms of the plan with Canada. In addition, APHIS implemented a domestic harmonization plan in FY 1993.

Pine Shoot Beetle

Pine shoot beetle (PSB) was first detected in a Christmas tree plantation on July 1, 1992, in Lorain County, Ohio. Subsequent surveys have detected the insect in 87 counties within 6 additional States: Ohio, New York, Pennsylvania, Indiana, Michigan, and Illinois. This beetle is reported to be the second most destructive shoot-feeding species in Europe. It is also the most destructive pest of pine.

Regulatory actions to control the interstate movement of regulated articles out of the quarantine area were imposed by APHIS and the States in November 1992. The infested States are supporting the cooperative program with interstate quarantine and cost sharing. The PSB program has nearly universal support from infested and non-infested States, other State and Federal agencies, and the regulated industries.

In FY 1993, APHIS conducted detection surveys at high-risk locations throughout the United States and extensive delimiting surveys around the known infested areas. Agency inspectors did not find any major PSB expansions into new States.

12. Noxious Weeds

This program prevents the entry of noxious weeds into the United States from foreign countries. Under the provisions of the Federal Noxious Weeds Act of 1974, APHIS works with State and local agencies to detect and prevent newly found or not yet widely established weeds from damaging U.S. agriculture. In FY 1993, program methods included port-of-entry inspections, weed identification, surveys to determine the scope of infestations, eradication feasibility studies, and other control and eradication projects. The program also conducted surveys and eradication feasibility studies on crupina in Idaho, goatsrue in Utah, itchgrass in Louisiana, and hydrilla in California and Florida. The Agency continued control efforts directed at common crupina, goatsrue, hydrilla, Salsola vermiculata, Orobanche ramosa, Orobanche Minor, and Cuscuta japonica. In addition, APHIS awarded a grant to the State of Florida to perform research and conduct control activities of Mimosa pigra.

13. Pink Bollworm (PBW)

In FY 1993, the PBW cooperative program continued to be successful in keeping this pest from invading cotton producing areas in the San Joaquin Valley, California. The number of non-sterile moths trapped in the San Joaquin Valley continues to decrease with 51 non-sterile moths trapped during the 1993 season, 115 moths trapped in 1992, and 263 in 1991. To achieve this, the program released 834 million sterile moths in 1993, an average of 6.1 million sterile moths released per day (based on 137 shipping days). The PBW program protects the $1.3 billion cotton industry in California and Arizona, and prevents PBW from spreading to other non-infested States. Establishment of high populations of this pest in the San Joaquin Valley could cause yield losses and increase production costs of $25 to $50 million per year.

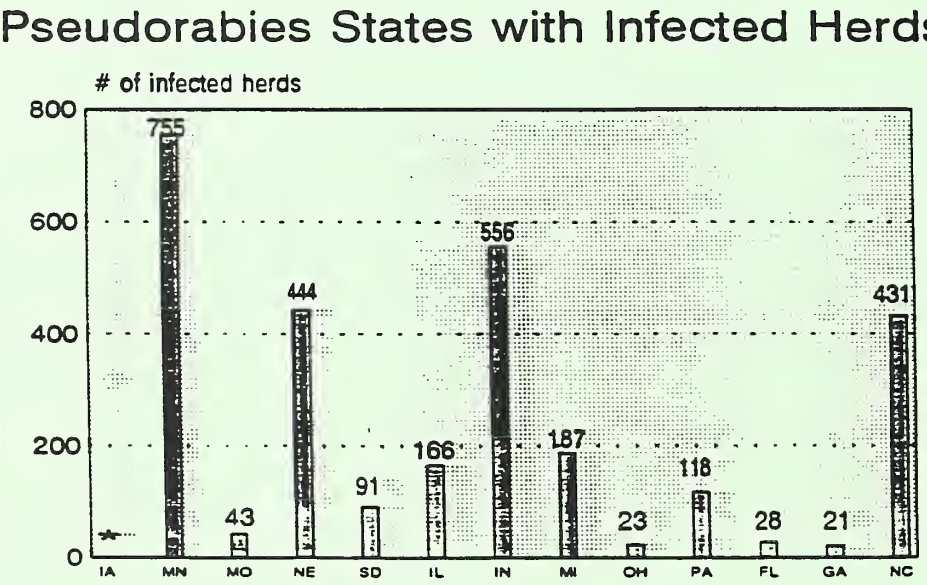
APHIS produced 834 million sterile moths at the moth rearing facility in Phoenix, Arizona. APHIS continued purchasing equipment for a new replacement rearing facility. The Agency spent $1 million in FY 1993,

essentially completing acquisition of equipment for current level activities. Construction on the facility began on October 5, 1992, and production should begin in early spring.

Under the survey and quarantine enforcement part of the program, Mississippi and Arkansas remained on the list of quarantined States in FY 1993. In addition, because APHIS trapped PBW over the last three consecutive years in Missouri, the State was added to the list of quarantined States. Two Tennessee counties will be added to the quarantine list in FY 1994.

14. Pseudorabies Virus (PRV)

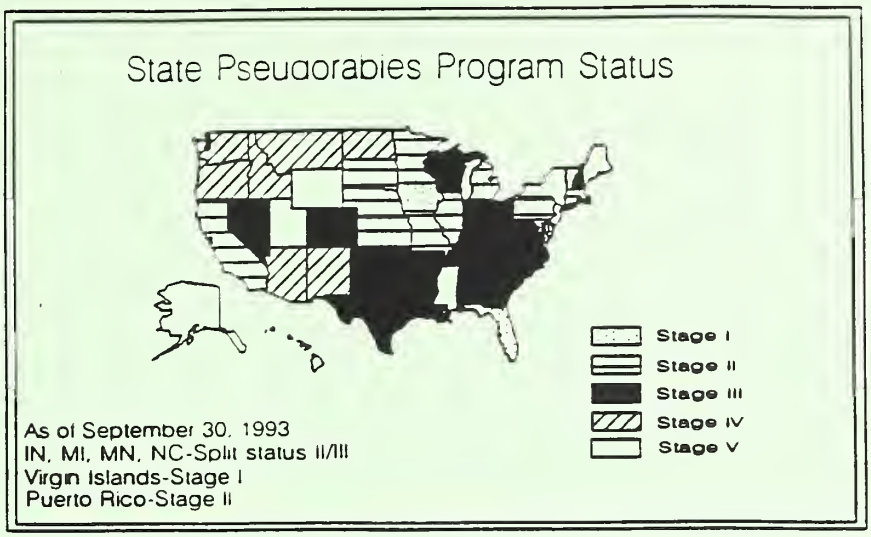
In FY 1993, 21 States in addition to Puerto Rico and the U.S. Virgin Islands progressed to the next stage in the PRV program and seven States (Alaska, Connecticut, Maine, Mississippi, New Mexico, Utah, and Wyoming) advanced to Stage V (Free) status. Eight States are in Stage IV. These States have no infections, but must remain in Stage IV for one year before applying for Stage V status. Twenty-one other States are in Stage III or have areas in Stage III. Stage III States/areas have only a low incidence of PRV. All States except Iowa have progressed in their eradication programs and the number of infected hogs in these States has been decreasing since June 1990. The United States now has its lowest level of infected herds since the PRV program began in 1988. The PRV-free swine herds play a crucial role in helping the U.S. swine industry become a major player in the international pork trade.




* Iowa reported 3,969 infected herds
** The following states have infected herds of 20 or less: KS, OK, TX, KY, MA, MD, NH, NJ, RI, VA, WI, AL, LA, SC, TN, CA, and CO

A 1987 Iowa State University cost/benefit study concluded that the U.S. swine industry, which has a production value of $11 billion, directly and indirectly generates $66 billion of economic output and 764,000 jobs each year, providing $23 billion in personal income. This same study found that pseudorabies costs pork producers over $30 million annually. APHIS continued to provide funding and technical support in FY 1993 for cost/benefit studies and economic evaluation to

assess the true costs of pseudorabies to the swine industry. In October 1993, Ohio State University's veterinary medical schools completed another cost/benefit study.




APHIS participated in various studies in Georgia, Florida, Texas, and California to determine what role, if any, feral swine play in PRV eradication from domestic swine. In addition, the Agency has been involved in risk analysis studies and negotiations to enhance international trade of live swine and/or pork products. Also in FY 1993, APHIS sponsored a national training program to provide essential information for all regulatory officials working with the PRV eradication program. The Agency also provided regional training programs that focused on specific State needs and resulted in enhanced program activities. New biotechnology advancements are continually being monitored and employed when appropriate to improve the program. In FY 1993, APHIS made improvements in new vaccines and diagnostic capabilities. The Agency continued to work with allied organizations such as practicing veterinarians, National and State Pork Producer organizations, American Farm Bureau, State Regulatory Officials, Swine slaughter and meat processing industries, universities cooperative extension service to discuss joint eradication projects. Also, the Agency assisted the Livestock Conservation Institute in sponsoring an annual meeting and distributing a monthly publication on the progress of PRV eradication.

15. Salmonella enteritidis (SE)

In FY 1993, the SE program continued to monitor human SE outbreaks and conduct tracebacks to flocks of origin for egg-associated outbreaks. A total of 57 human SE outbreaks were reported in Calendar Year (CY) 1993, compared to 54 in CY 1992. Eggs were implicated in 17 of the CY 1993 outbreaks, compared to 24 in CY 1992. Whenever eggs have been implicated in an outbreak, an area epidemiologist contacts the local public health service and collects invoices and packing information to determine the originating flock. In 12 of the 20 egg-related outbreaks, though, the outbreak could not be traced back to one particular source flock. Tracebacks are still in progress for two other outbreaks and tracebacks from one of the outbreaks led to an Indiana flock. One flock was depopulated before testing and another flock tested negative for SE.

To prevent SE outbreaks, APHIS continued an SE pilot project in Pennsylvania that began in April 1992. This project, which is a cooperative project between producers, the USDA, and the Pennsylvania Department of Agriculture, is designed to determine the best methods of preventing and controlling SE in egg-layer flocks. It now monitors approximately 5 million egg layers in 81 hen houses on 50 premises. The project's pertinent findings are being used to promote voluntary certification programs in areas where SE is a problem for egg-layer flocks. Its main objectives are to reduce the number of egg-associated SE cases and outbreaks and to study the epidemiology, transmission and risk factors involved in SE. Specific areas of interest include management and sanitation, cleaning and disinfection, rodent control, culture of the environment for SE, culture of eggs for SE, the role of chicks and pullets as SE risk factors, and the use of the SE vaccine.

This project has led to several major findings. Among these are that routine culture of eggs from an SE-affected flock can be used to determine SE risk for humans, that SE vaccine may reduce the number of SE-contaminated eggs in an SE positive flock, that SE in a flock does not appreciably affect the flock's mortality, morbidity, or egg production, that rodents play a prominent role in SE transmission among flocks, and that no flock in the project has been involved in a traceback from an SE outbreak since the start of the project. The project has also demonstrated that SE occurrence in eggs is extremely rare, although it has been shown to be present more frequently after molting. Specifically, the percentage of eggs contaminated with SE in affected flocks was .028 percent. As a direct result of this project, a Pennsylvania Egg Quality Assurance Program began in November 1993. This cooperative program is sponsored by the Pennsylvania Poultry Federation and supported by the Pennsylvania Department of Agriculture, Penn State University, the University of Pennsylvania, the Pennsylvania Animal Health Commission, producers, and the USDA. An estimated 200 flocks with 12 million birds are expected to be covered by this program, which uses control and testing procedures developed in the pilot project and should contribute significantly to preventing cases and outbreaks of SE caused by fresh shell eggs.

16. Scrapie

Scrapie continues to cause significant financial losses to sheep and goat producers across the country. Historically, it has resulted in annual losses of approximately $2.5 million. In FY 1993, 120 flocks were diagnosed positive with one or more cases per flock. This is an increase of 53 from FY 1992. Of these 120 flocks, 10 had cases in previous years and 110 were new flocks with positive cases, compared to 56 in FY 1992. In FY 1992, 67 flocks were diagnosed positive, including 11 flocks with cases in previous years and 56 new flocks with positive cases. The increase in positive diagnoses from FY 1992 to FY 1993 can be at least partially attributable to the FY 1993 indemnity program.

On October 1, 1992, APHIS implemented the Voluntary Scrapie Flock Certification Program (VSFCP). This program was developed through the negotiated rulemaking process involving the sheep industry, allied industries, State animal health officials, APHIS, and other interested parties. The intent of the program is to monitor participating flocks for 5 years or more and to identify flocks free of scrapie. The program also contains provisions to restrict the interstate movement of animals from infected flocks and source flocks and to prevent the disease's introduction into scrapie-free flocks. Approximately 29 flocks enrolled in the VSFCP during FY 1993 and no infected sheep were

found in these flocks. Also in FY 1993, APHIS continued to support cooperative research between the Scrapie Investigation Center at Mission, Texas, and Utah State University to determine if embryo transfer provides a means of preventing scrapie transmission in sheep and goats. In addition, support was provided for cooperative research with the New York Institute for basic research, where scientists are working to develop a preclinical diagnostic test. Currently, no procedure is available to identify scrapie-infected animals before clinical signs appear.

17. Tuberculosis (TB)

As of September 30, 1993, 41 States and the U.S. Virgin Islands were in accredited-free status. Hawaii gained accredited-free status in FY 1993. Nine States including California, New York, Kansas, Louisiana, Pennsylvania, New Mexico, North Carolina, Oklahoma, and Texas are in modified accredited-free status. Puerto Rico is also in modified accredited-free status.

As of September 30, 1993, there were 12 confirmed infected herds quarantined for TB. Nine of these were carried over from previous fiscal years (eight infected and one exposed), and three were newly detected. The newly detected herds included one dairy herd in the El Paso milkshed area, which, as of September 30, had seven infected herds. The second detection was in a dairy herd in Texas and the third was in a herd of cattle and bison running in a commercial game park in Oklahoma with TB Cervidae.

Since January 1, 1991, TB has been confirmed in 24 captive cervid herds located in 13 States: Colorado, Montana, Idaho, Nebraska, New York, Indiana, North Carolina, South Carolina, Virginia, Missouri, Oklahoma, Texas, and Wisconsin. Ten of these herds were confirmed in FY 1991, 3 in FY 1992, and 11 in FY 1993. Of the 24 herds, 11 were depopulated by the owners without compensation, 9 remain under quarantine and are still being tested, and 4 have been tested and released. As a result of these confirmed cases, 68 additional herds have been exposed to TB.

In FY 1993, the Tuberculosis Committee of the U.S. Animal Health Association (USAHA) approved an APHIS-drafted tuberculosis addendum to the Bovine Tuberculosis Eradication Uniform Methods and Rules. The addendum provides for accredited cervid herds, official testing and follow-up procedures, and testing requirements for interstate movement. APHIS is currently making USAHA's recommended changes and finalizing the addendum for distribution.

Federal Meat Inspection personnel provided valuable support by submitting a total of 100 official Mexican eartags from tuberculous cattle found at regular slaughter. This allows APHIS to establish a steer's place of origin and other movement that may result from the sale of the cattle. Animal health officials in Mexico report that procedures have been implemented that will permit official eartags to identify the specific farm of origin. This will substantially increase the likelihood of successful tracebacks and provides new incentives for promoting official identification collection from all slaughter lots containing "M" branded cattle.

The project for supplying equipment to laboratories in Mexico for the diagnosis of tuberculosis continued with shipments made to the University of Mexico, Baja California, and to a laboratory in Mexico City. The equipment is acquired through the General Services Administration surplus property system at no cost to the Agency.

18. Witchweed

The program's goal is to prevent the spread of witchweed to host crop-producing areas of North Carolina and South Carolina, and move towards eventual eradication of this pest. In FY 1993, APHIS continued working closely with State and local governments, industry groups, and farmers to control witchweed. APHIS has eradicated witchweed from approximately 377,580 acres (87 percent of the originally infested areas). Twenty-four of 39 counties have been released from quarantine. In addition, APHIS continued progress towards ending direct involvement in the witchweed program. The current levels of infestation will allow APHIS to transfer the eradication program to the States by FY 1995. Afterwards, the Agency involvement will be limited to providing scientific and technological support to the States. In addition, APHIS will conduct post-eradication surveys and spot treat new infestations when detected. If allowed to spread into the corn belt, witchweed would cause an estimated 10 percent yield loss of the $20 billion corn, sorghum, and sugarcane industries in the United States.

## ANIMAL CARE

Current Activities: Under legislation first enacted in 1966 and amended several times thereafter, APHIS carries out activities designed to ensure the humane care and handling of animals used in research, exhibition, or the wholesale pet trade. Primary emphasis is placed on inspection of facilities, investigation of complaints, reinspection of problem facilities, and training of inspectors.

Regulations supporting the Animal Welfare Act (AWA), which appear in 9 CFR, Parts 1-3, provide minimum standards for the handling, housing, feeding, sanitation, ventilation, shelter from extreme weather and veterinary care of regulated animals. Birds, laboratory rats, and laboratory mice are currently excluded from these regulations, but legal action pending at the end of FY 1992 may cause their eventual inclusion.

APHIS performs prelicensing inspections because, according to statute, applicants must be in full compliance with AWA regulations and standards before a license is issued. After a license has been issued, program personnel perform unannounced compliance inspections and reinspections to verify continued compliance.

The program also conducts unannounced inspections of in-transit carriers and in-transit intermediate handlers to ensure humane care and handling of animals under their custody, and especially to ensure that adequate care is provided when a delay is involved. Registrants must refuse animals if the shipper does not meet regulatory standards. Inspectors carry out their inspections at major airports as resources allow, concentrating their efforts on times when animals are present.

If violations are discovered during a compliance inspection, APHIS establishes a deadline for correction, following which inspectors are required to make a reinspection. If the conditions remain uncorrected, APHIS documents them for possible legal action.

The Pet Protection Act was passed by Congress as part of the FACT Act of 1990. It sets specific holding periods for animals in public or private pounds or shelters and requires certification that the holding period has been met. The final regulations for this Act were published in the Federal Register on July 22, 1993.

APHIS is also responsible for administering the Horse Protection Act (HPA) of 1970 which prohibits the showing, sale, auction, exhibition, or transport of sored horses. Management of shows, sales, auctions, and exhibitions has statutory responsibility under the HPA to prevent unfair competition and must identify sored horses to prevent their exhibition, sale, or use.

APHIS inspectors monitor shows and sales for compliance and an industry self-regulation system known as the Designated Qualified Person (DQP) program which is the primary means of detecting sored horses. Horse Industry Organizations maintaining certified DQP programs participate with APHIS in yearly DQP training seminars and refresher clinics. Regulatory policy, procedures, and methods of inspection are reviewed throughout the year by APHIS in consultation with representatives of the horse industry to enforce and strengthen training programs. DQP's are evaluated for their compliance with all provisions of the HPA regulations.

Selected Examples of Recent Progress:

1. Animal Welfare

APHIS continued its efforts to increase the quality of inspections in FY 1993. The program implemented a comprehensive computerized inspection tracking system known as the Licensing Application Registration Information System (LARIS) to all sectors. This system increases program efficiency by providing an on-line database on AWA licensees and registrants as well as the capability for establishing a risk-based inspection ranking system.

APHIS inspectors conducted 2,213 prelicensing inspections, 2,368 carrier inspections, and 17,593 compliance inspections for a total of 22,174 inspections performed in FY 1993.

Through cooperation within APHIS to provide training and internship programs, APHIS continues its efforts to increase the quality of inspections. Two in-depth training courses on AWA regulations and standards were held at different locations in the field. However, due to a critical need to replace 22 high-mileage vehicles planned courses for inspectors in dealer recordkeeping and the other in water quality inspection for marine mammals were postponed until FY 1994. Other training efforts included continuation of the Exhibition Animal Internship program, as well as plans for implementation during FY 1994 of a Research Facility Animal Internship program.

In September 1993, APHIS held a 2-day public meeting in Oklahoma City, Oklahoma, to discuss issues of housing, care, handling, and unique practices concerning those farm animals subject to regulation under the AWA because of their use for nonagricultural purposes. The Agency will use the recommendations and proposed guidelines developed at this forum to further review and evaluate regulatory issues on this subject prior to formulating regulations covering farm animals used for nonagricultural purposes.

2. Horse Protection

During the FY 1993 horse show season, five HIO's monitored 495 shows, sales, auctions, and exhibitions. Of the 95,000 horses examined by DQP's at those shows, 1,140 were turned down because of noncompliance with the HPA (average turndown rate of 1.2 percent). Concurrently, APHIS personnel evaluated DQP's at 64 events. Approximately 2.04

percent of the horses were turned down in the presence of APHIS inspectors. APHIS personnel issued 25 Federal violations in FY 1993; in 20 of these cases, horses were documented as sored.

On January 29, 1993, regulations became effective amending the HP regulations applicable to DQP's in conducting inspections at shows, exhibitions, sales, and auctions. These actions are designed to add further safeguards against soring, and improve the methods of detecting sored horses. A similar proposed rule to amend the HP regulations regarding the presence of scars on horses foaled after October 1, 1990 is being developed in order to better protect horses under the Act. APHIS expects that these guidelines will improve the quality of inspections performed, while not placing an inordinate burden on the horse industry.

APHIS meets annually with representatives of the horse industry and associations such as the American Horse Protection Association (AHPA). Agency officials held an extensive meeting with industry representatives in January 1993, and participated in numerous discussions with various interest groups throughout the show season. APHIS personnel also met with industry owners, trainers, and committee members in a field setting.

Annual training of veterinary medical officers was conducted to acquaint new APHIS personnel with the HP program as well as to provide established VMO's with updates in policy and performance standards.

## SCIENTIFIC AND TECHNICAL SERVICES

Current Activities: APHIS conducts programs to develop new or improved methods for reducing wildlife/agriculture conflicts, for controlling or eradicating harmful plant pests, and for applying new technology to assure the latest genetically engineered viral vaccines are pure, safe, potent, and effective. Additionally, the Agency conducts laboratory testing programs to support disease and pest control or eradication programs. Specific program efforts include:

Methods development: ADC methods development activities include: a program to develop blackbird damage-resistant sunflower strains; techniques for control of mountain beaver damage to western forests; methods to reduce rat damage to sugarcane and macadamia nuts, for reducing cormorant depredations of catfish, to improve single dose bait consumption by coyotes, to further develop and validate analytical methods of chemical analysis, to register and reregister chemicals compounds that are used for small mammal, bird, and predator control, and for taste aversion.

Biotechnology: Biotechnology has emerged as a force with the potential to improve existing products and spawn new technologies which could benefit agriculture as well as the general U.S. economy. Under its broad authority to protect plant and animal health, the Department has established a regulatory structure for bringing the benefits of genetic research from the laboratory to the marketplace, while protecting against the release of potentially harmful organisms into the environment.

Laboratory testing: The program for testing veterinary biological products is expanding to encompass testing for licensure of products destined for intrastate as well as interstate use, and the testing of genetically engineered products. The veterinary diagnostics program

continues testing in support of the Agency's animal disease prevention, detection, control, and eradication programs. In FY 1993, APHIS began collecting user fees for this program.

Selected Examples of Recent Progress:

1. ADC Methods Development

In FY 1993, the Denver Wildlife Research Center (DWRC) continued to develop and validate analytical methods of chemical analysis, and to register and reregister chemicals such as Compound 1080, strychnine alkaloid, zinc phosphide, Starlicide (DRC-1339), alpha-chloralose, and methyl anthranilate. These compounds are used for rodent, bird, and predator control, and for taste aversion. Approximately 55 percent of the methods development effort was devoted to developing alternative, nonlethal methods such as bird repellents, varietal resistance of crops to vertebrate damage, habitat manipulation, and immunocontraception.

In FY 1993, construction began on a new ADC methods development facility at Fort Collins, Colorado. This is the first phase of a three-phase project to relocate the DWRC from the current Denver site.

During FY 1993, ADC personnel in several Western States evaluated the potential of a new breakaway snare equipped with a shear-pin lock developed at DWRC. Additional field testing continued during FY 1993 to obtain observations encompassing a variety of field conditions. The improved locks were effective in allowing deer, antelope, and cattle to release themselves.

Among other projects, DWRC progressed in research to identify an immunocontraceptive for use on deer and other mammals as a method to resolve site-specific wildlife problems. Studies aimed at perfecting oral delivery of immunocontraceptives also continued. In addition, the program evaluated methyl-anthranilate as a bird repellent in aquatic situations with promising results. Birds can be repelled from water areas with new formulations that were tested. An electronic device for repelling beaver from problem areas, such as water control structures, was successfully tested.

During FY 1993, DWRC began a study to evaluate the efficacy of three sulfur-based repellents to protect seedlings from elk and deer browsing. This study is a part of an ongoing cooperative effort with the U.S. Forest Service to identify a method for alleviating wildlife damage on reforestation units. The program also began the first phase of the forward-looking infrared (FLIR) imaging study designed to determine the feasibility of using airborne FLIR technology to locate and conduct censuses of coyote and other wildlife populations.

ADC Methods Development personnel undertook studies of the brown tree snake problem in Guam under terms of an interagency agreement between DWRC and the U.S. Fish and Wildlife Service. DWRC research showed that methyl-bromide, as well as other fumigants and oral and dermal toxic insecticides, may be effective in controlling the pest. Fumigation of cargo that has a high risk of harboring snakes is one potential method for preventing their dispersal to other Pacific islands, including Hawaii.

DWRC submitted over 55 data volumes and labels, numerous amendments, and data waiver requests to the Environmental Protection Agency in support of vertebrate pesticide registrations. Each data volume supports a specific type of information that the Center is providing.

In addition, pesticide registration consortia consisting of APHIS personnel, private registrants, and State government officials, collaborated to provide data in support of product reregistration for strychnine, Starlicide, zinc phosphide, and methiocarb.

2. Biotechnology/Environmental Protection

Environmental Protection

In FY 1992, the Agency consolidated its three environmental units, Environmental Analysis and Documentation (EAD), Technical Support Services (TSS), and the National Monitoring and Residue Analysis Laboratory (NMRAL), under one division as part of an expanded ***biotechnology/environmental protection*** (BEP) line item. The action was taken to strengthen the Agency's ability to meet two key challenges of the 1990's: ensuring that APHIS functions as a good steward of the environment in its conduct of control and eradication programs both within and outside the United States, and serving as an effective and efficient regulatory bridge for the safe transfer of biotechnology products from laboratory to marketplace. Under the "circle of environmental protection" (CEP) concept, the BEP program helps the Agency comply with all environmental requirements--the National Environmental Policy Act (NEPA) and other statutes, regulations, and Executive Orders--in a proactive fashion.

The program's Environmental Analysis and Documentation (EAD) unit works with program planners to help identify and develop viable alternatives to current control and eradication programs, and documents APHIS' environmental planning activities. During FY 1993, EAD continued to work on an environmental impact statement (EIS) for Veterinary Services programs, and prepared a preliminary draft of the programmatic EIS for Medfly. On November 26, 1993, the Agency published a final record of decision for the Medfly EIS in the Federal Register. Altogether, the EAD unit prepared 27 environmental documents for APHIS programs during the fiscal year. These documents provided policy support and review for numerous environmental documents completed by program officials.

The second CEP component--Technical and Scientific Services--maintains registrations of chemicals and other substances used in current APHIS programs, while helping the Agency to identify emerging, less environmentally invasive alternatives to current practices. TSS also helps programs develop monitoring plans for assessing the impact of Agency actions on the environment. In FY 1993, TSS prepared monitoring plans for program activities and completed and distributed five environmental monitoring reports with detailed evaluations of residue data collected during control/eradication programs.

In order to meet the requirements of the Endangered Species Act (ESA), TSS designed guidelines to determine the effect of aerial spraying of malathion on established eagle nests, and designed a special eagle study for the gypsy moth program in Washington State. The Unit also collaborated with Penn State University and the University of Alabama in developing and implementing studies of aerial malathion drift, to satisfy Fish and Wildlife Service requirements, and the effects of malathion in streams on endangered species, respectively. TSS developed course material and provided training for Plant Protection and Quarantine field personnel regarding the NEPA requirements and other procedures involved in environmental monitoring. In addition, TSS provided assistance to APHIS' Plant Methods Development Center at Hoboken, New Jersey, in the development of a database for AQI program records.

The third link in the CEP, the National Monitoring and Residue Analysis Laboratory (NMRAL) at Gulfport, Mississippi, analyzes samples of soil, water, and crops for pesticide residue to ensure that the agency is conducting its programs in compliance with the Federal Insecticide, Fungicide, and Rodenticide Act; the Toxic Substance Control Act; the Toxic Substance Control Act; the Endangered Species Act; the Occupational Safety and Health Act, and other pertinent environmental statutes. The laboratory supports all APHIS programs--principally AQI, grasshopper, imported fire ant, boll weevil, Medfly, and gypsy moth--and performs reimbursable work for other USDA agencies and other entities for the analysis of pesticide residues and industrial chemicals. Work done for other agencies include analyzing pesticide residues in food commodities in Agricultural Marketing Service's Pesticide Data program which is intended to provide information to assure a safe food supply. During FY 1993, NMRAL conducted 9,796 chemical analyses for various pesticides including 3,985 analyses in support of APHIS programs and 5,811 analyses for other Federal agencies on a reimbursable basis. The laboratory also analyzed 75 plugs of trimedlure for potency and stability. The latter are used as part of the Medfly surveillance programs.

Biotechnology

Continuing the trend of recent prior years, APHIS experienced significant growth in workload, with an increasing volume of transgenic plants being tested in the field and coming to the market place. Since 1987, APHIS has experienced an increase in the number of release permits for field tests of transgenic plants, going from 5 field release in FY 1987 to 141 in FY 1993.

Based upon past experience and other relevant information, APHIS has concluded that the level of Federal oversight for such field tests and movement can now be reduced commensurate with the level of risk. To this end, the Agency moved in FY 1992 to amend the regulations to establish: (1) a notification process for the introduction of transgenic plants developed with genetic material from known plant pests, and (2) a petition process allowing determination that contains articles should not be regulated based on data developed from field trials.

Notification

Based upon our past experience of over 450 release permits and over 1,500 permits for movement of transgenic plants, we have established a notification process for both the field testing and movement of corn, soybeans, cotton, tomato, potato, and tobacco products. On March 31, 1993, the Agency published final regulations on the notification process. This process is based on the concept that it is possible for APHIS to assure that environmental risks will be minimal if a field test meets certain performance standards. The standards set the goal, but not the specific design protocols which researchers might use to achieve the performance standards. However, APHIS provides researchers with examples of possible protocols that are suitable for meeting the performance standards. If a proposed field test meets the prescribed standards, APHIS does not require a permit to conduct the test. The researcher simply notifies APHIS of the nature and location of the proposed field test, and certifies that the test will be conducted in accordance with the relevant standards.. In turn, APHIS provides this information to the respective State regulatory officials. The Agency reviews proposed field tests that fail to qualify for the notification process under the current permitting process.

The new notification process allows a researcher to obtain authorization to field test or import one of the aforementioned crops within 30 days, or within 10 days for simple interstate movement. Following submission of a brief description of the regulated article, the site or destination, and a signed certification attesting to the responsible persons adherence to the notification eligibility criteria and performance standards, APHIS replies with an acknowledgement.

The notification process has proven to be more successful and better received by applicants then we had predicted. During the last 6 months of FY 1993, the Agency processed 117 release notifications and 79 movement notifications and 7 for importation. APHIS expects to issue over 500 notifications in the first full calendar year, and between 1,000 and 2,000 next year. This process is expected to save the Government approximately 10,000 to 20,000 staff-hours of work in the first year. Moreover, this new procedure has proven to be a cost-effective method of removing excessive regulatory burden on the biotechnology industry; an industry on the "cutting edge" in providing high tech employment. Equally important, APHIS has accomplished this increase in efficiency without compromising public safety, environmental safety or appropriate regulatory oversight.

Petition

On March 31, 1993, APHIS published regulations that established the petition process. These regulations allow for a determination that certain transgenic plants are no longer regulated articles, and define the information and data requirements for filing a petition for a determination of non-regulated status. APHIS is currently reviewing the petitions for the following three commodities: (1) virus resistant squash; (2) herbicide resistant soybeans; (3) and herbicide resistant cotton.

Together, these changes encourage innovative biotechnology research and rapid development without compromising safety. They also assure notification of States and the general public, and allow APHIS to focus its limited resources on petitions for release from regulation of more complex permit applications, and on efforts to harmonize biotechnology regulations between nations.

The Agency has been actively engaged in efforts to reduce barriers to international trade, and to foster the harmonization of regulations. In an effort to harmonize the regulatory oversight of genetically engineered plants and micro-organisms, APHIS personnel continued their active participation in United States/European Community bilateral environmental consultations and as members of the permanent Technical Working Group on Biotechnology and the Environment (TGBE). These efforts resulted in the issuance of the report of the second joint US/EC workshop on the release of transgenic plants which focused on case studies and approaches to risk assessment. The next TGBE meeting, to be held in FY 1994, will focus on the depth of data as well as how such data will be generated. This work has assumed heightened significance as a number of new plant varieties approach the final stages of variety development prior to commercial introduction.

In cooperation with the Organization for Economic Cooperation and Development (OECD), APHIS has been participating in an ad hoc technical group of government experts on Biotechnology for a Clean Environment. This group is developing a report that examines environmentally friendly uses of biotechnology, and highlights efforts of member nations leading to the development of biotechnology industries. In

addition, APHIS finalized and published a report focusing on the harmonization of approaches for safety assessment of biotechnology products entitled, "Report on the Seminar of Scientific Approaches for the Assessment of Research Trials with Genetically Modified Plants."

APHIS continues to work closely with individuals from numerous countries to share knowledge and experience in order to enhance the international harmonization of regulations. The government of Australia has sought the knowledge and expertise of APHIS in their efforts to develop a centralized national approach to regulating biotechnology products. Other specific activities have included working with officials from the Agency for International Development to host a regulatory capacity-building workshop for officials from Egypt, Kenya, and Indonesia, and hosting two separate week-long visits for individuals from the government and academic biotechnology communities of Thailand.

The program also continues to participate in efforts aimed at shaping the implementation of the Convention on Biodiversity to ensure that any provisions on biosafety that emerge do not unduly inhibit the development of our domestic biotechnology industry. APHIS is working closely with the Department of State to prepare a package of ratification documents for the Congress that explains U.S. Government policy and strategy in this regard.

Among other activities, APHIS continues to participate in the United Nations Conference on Environment and Development activities relating to national and regional biosafety capacity-building. The Agency helped to organize and participate in a Dutch government-sponsored meeting in Harare, Zimbabwe. In addition APHIS served, at the request of the United Nations Industrial Development Organization, on a panel on biotechnology regulation that visited the Russian Federation. The purpose of this meeting was to help the Russians in their efforts to develop a regulatory policy for biotechnology products consistent with sound scientific principles and with other regulatory approaches in other nations.

3. Integrated Systems Acquisition Project (ISAP)

The Agency released the ISAP Request for Proposals (RFP) on January 28, 1993. The release of the RFP was followed by extensive dialogue with interested vendors to clarify the Government's intent and requirements. Proposals were received on October 14, 1993. Contract award is expected during the last quarter of FY 1994. Additional program accomplishments include:

--The Source Evaluation and Implementation Board convened and started discussing the issues of an Agency-wide implementation of ISAP. This board is responsible for program-wide implementation planning including site specific requirements for hardware, software, telecommunications and support services. The board is also responsible for providing the Source Selection Board with an award recommendation based on technical and business findings obtained from analysis of the ISAP proposals.

--Established and trained the ISAP proposal validation and evaluation teams. An automated validation/evaluation system was developed to effectively track the review of the proposals and to identify ambiguities and deficiencies in the proposals.

--An Information Systems Planning (ISP) process has been instituted within APHIS. The ISP is identifying ways the Agency can improve management of information systems. By identifying the business needs of APHIS, the needs of the different functional units will be integrated into a shared data environment. The ISP effort will allow for the accessibility of information among all functional and organizational lines. This effort has been segmented into four basic levels with multiple tasks. The four basic levels are as follows: 1) definition of ISP, 2) architecture development or development of the data and process models for the business areas, 3) applications development, and 4) construction to include data element standardization and data dictionary development.

--APHIS initiated a Network Management System (NMS) analysis to position the Agency to effectively utilize and benefit from the ISAP solution. This step is necessary in order to operate the multiple, geographically distributed, shared databases in APHIS and a comprehensive Agency-wide electronic mail system.

4. Plant Methods Development Laboratories

The program is continuing to develop and improve advanced capabilities for detection, exclusion, containment, and management technologies for key exotic, introduced, and native pests, including insects, diseases, and weeds.

The Hoboken, New Jersey, Methods Development Center (MDC) continues to focus on new fumigation techniques, commodity treatments with heat or cold, and technical support to port inspection stations. Commodity treatment facilities are certified, risk assessments are accomplished, and stored product pest survey methods are perfected. Technical expertise is provided to update the APHIS treatment manual, develop fumigation standards, evaluate preclearance commodity treatment facilities, conduct aerosol and dust tests, and test plant products for tolerance to treatment. During FY 1993, final testing of a new fumigation enclosure was completed. This enclosure will ensure safer and more precise treatments in the field. In cooperation with ARS and Chile, a new non-chemical treatment for cherimoya (a tropical fruit), was developed. This treatment, which consists of soapy water and wax, has promise for use on other commodities to replace methyl bromide.

The Mission, Texas, MDC emphasizes pest-free areas provided by sterile insect release technology, chemical bait sprays, and other suppressive measures. Efforts are also directed toward improving quality control procedures for mass-produced fruit flies. Operational aspects of boll weevil eradication are being modified to eliminate low-density populations and reduce control costs. New bait formulations are also being tested. During FY 1993, methodology was developed to mass-rear a larval parasite of the MFF. Improved techniques to immobilize and field-deliver the parasite were also developed.

The Otis, Massachusetts, MDC has increased its emphasis on the development of new, and improvement of existing, European and Asian gypsy moth management techniques including biological control, mating disruption, sterile insect technique, pesticide evaluation, survey technology, and associated mass-rearing. Technical consultation is provided for eradication of isolated infestations throughout the United States. Regulatory treatments and management strategies are developed for the Japanese beetle, apple ermine moth, and pine shoot beetle. Biological control programs are focused on gypsy moth and RWA. During FY 1993, a new regulatory treatment for gypsy moth egg masses was

developed, as well as new pheromone dispensers for gypsy moth survey traps. The center has also developed the technology for molecular identification (DNA fingerprinting) of insects.

The Phoenix, Arizona, MDC is concentrating on development of a biologically-based system for pink bollworm management. Emphasis has been centered on development of an automated mass rearing system for production of sterile insects at lower cost. This has enabled an initiative to extend area-wide pink bollworm management into the Imperial Valley of California. An expert system is being completed to guide decisionmaking in the pink bollworm management program. New and existing grasshopper and Mormon cricket management techniques, including the development of microbial biocides, are being developed to reduce reliance on chemical pesticides. A commercially available strain of fungal pathogen is being tested for large-scale use against rangeland grasshoppers. During FY 1993, a methods development station was established in conjunction with ARS to conduct extensive evaluation of exotic parasites for the whitefly. Initiatives are also underway to explore fungal pathogens and an exotic predator in this cooperative program.

The Whiteville, North Carolina, MDC provides scientific and technical support to APHIS and its stakeholders for soil-related pests including witchweed, other noxious weeds, imported fire ant, and golden nematode. The center develops and assists in implementing biologically sound programs for the exclusion, detection, containment, and eradication of foreign weeds from the United States; provides new treatments for potting medium, to facilitate the movement of nursery products from areas infested with the imported fire ant; designs and tests new regulatory treatments for controlling imported fire ants in sod; and provides essential support to the witchweed program. During FY 1993, the Witchweed Operations Manual was edited to include changes in treatments available for witchweed eradication. After field testing, four new herbicides were added this year for project use. In addition, new application techniques were developed for metham sodium (Sectagon). Sectagon fumigation has been incorporated into the witchweed project at a cost of $335 per acre as a replacement for methyl bromide fumigation which costs $1,500 per acre.

5. Veterinary Biologics

APHIS conducts the veterinary biologics program under the authority of the Virus-Serum-Toxin Act of 1913, as amended. The Act provides USDA with the authority to regulate veterinary biologics imported to the United States, moved in intrastate or interstate commerce, or exported. The Agency issues a product license for production or a permit for importation after an applicant has met all requirements for product purity, safety, potency, and efficacy.

Consistent with recent trends, program activity continued to increase in volume and complexity in FY 1993. For example, APHIS issued 131 product licenses and terminated 67 product licenses for a total of 2,090 active licensed or permitted products in FY 1993 as compared to 2,026 in FY 1992. Producers presented APHIS with a total of 22,471 serials of veterinary biologics for release in FY 1993, of which APHIS withheld 1.55 percent for failing to meet Agency requirements. The NVSL tested 1,617 of the 22,471 serials.

APHIS investigators conducted 28 preliminary investigations related to possible violations of program regulations in FY 1993, resulting in the formal investigation of 13 cases. Forty-two regulatory actions were

taken in FY 1993. The program issued four warning notices, with no cases referred for criminal or civil penalties. The OGC is in the process of prosecuting two cases previously referred to them.

The program continues to develop new testing methods for veterinary biological products, while working at the same time to improve current tests. For example, NVSL is working on in-vitro potency tests for veterinary biologics, which reduce the use of laboratory test animals and are less costly and more accurate than laboratory animal testing. The program has established procedures for statistical analysis of data and maintenance of acceptable standards for in-vitro testing. This change should make it much easier for industry to use in-vitro testing in the future.

The veterinary biologics program has also moved forward with efforts to reduce trade barriers to the sale of products overseas. For example, program officials met with representatives from the European and U.S. biologics industries and regulatory officials from the European Economic Community (EEC). The intent was to start the process of harmonizing requirements for the production, testing, and licensing of veterinary biological products between the two trade partners. United States and EEC regulatory officials will continue efforts to work toward harmonization this year and to keep each other informed of regulatory requirements through exchange of proposed and final regulations and directives. APHIS will co-sponsor a seminar to be held in September 1994, on risk assessment procedures for the international movement of veterinary biologics, as a forum to identify and address questions of disease risk.

Harmonization with Canadian regulatory officials under the United States-Canada Free Trade Agreement has also helped bring about the harmonization of testing and inspection procedures. Future efforts will include the development of procedures to assure harmony is being maintained through mutual monitoring procedures. Veterinary biologics personnel have also given invited presentations in Mexico on licensing and inspection practices.

In August 1993, the Agency held a public meeting with licensed manufacturers to discuss proposed changes in test standards and procedures for Eripipelas Bacterins. The following month, another public meeting was held address questions regarding proposed requirements for in-vitro testing.

To ensure responsiveness to consumer concerns, APHIS continues to maintain a toll-free hotline to address complaints about the potency, safety, and efficacy of veterinary biologics.

6. Veterinary Diagnostics

During FY 1993, the NVSL supported animal disease prevention, detection, control, and eradication programs; and provided diagnostic assistance to the livestock and poultry industries. There was continued emphasis on the isolation and identification of Salmonella enteritidis. Diagnostic support was provided for several programs that generated approximately 7,500 samples. In addition, over 35,000 cultures were submitted for Salmonella serotyping. Other activities included confirmatory testing of E. coli O157.H7 isolates and isolation of E. coli (K99) in support of the National Animal Health Monitoring System's Beef Cow/Calf Health and Productivity Audit.

In FY 1993, NVSL participated in rapidly establishing the cause of an equine viral arteritis (EVA) outbreak at a racetrack in Arlington, Illinois. The antibody against the virus was detected in 9 of 63 (46 percent) horses with clinical signs, and the virus was isolated from 24 of 37 (65 percent) infected animals.

NVSL also participated in the evaluation of the IDEXX gamma interferon test for the diagnosis of bovine tuberculosis. This involved the bacteriological and histopathological examination of multiple tissues from approximately 700 cows. The study is being done in cooperation with the National Animal Disease Center and the Texas Animal Health Commission and is expected to be finalized in early 1994.

NVSL processed and diagnosed more cases of bovine tuberculosis in FY 1993, than in any other year of NVSL's operation. Since FY 1986, the total number of bovine tuberculosis cases processed by the NVSL has increased three fold from 2,604 to 6,193 and the number of compatible cases have increased 10 fold from 70 to 697.

The Foreign Animal Disease Diagnostic Laboratory (FADDL) presented five Foreign Animal Disease Courses in FY 1993 - two for APHIS field personnel, one for university and state diagnostic laboratory personnel, one for Agriculture Canada regulatory personnel, and one for second year veterinary students.

A ribonucleic acid probe made from nonstructural protein-1 of African horse sickness (AHS) virus was used to successfully detect all nine serotypes of AHS virus in cell culture, using an <u>in situ</u> hybridization procedure. This probe was then applied to archive formalin-fixed tissue from 15 experimental cases of AHS, proving to be sensitive and specific. This procedure could be useful in diagnosing cases of AHS in the field.

During FY 1993, porcine reproductive and respiratory syndrome (PRRS) virus isolation attempts were successful on approximately 10 percent of over 3,000 samples tested. Serology for PRRS virus was done on nearly 40,000 sera. Approximately 27 percent of the samples were positive. The North American type PRRS isolate appears to be spread across the country, and serological studies indicate that a virus similar to European reference strains is established in certain areas of the country. Laboratory personnel have undertaken studies to determine the survival time of PRRS virus (both the North American and the European strains) in tissues from experimentally-infected pigs when stored at different temperatures. These studies have not been finalized but were started in response to a request by Russian scientists and trade officials. It appears that these studies may have trade implications far beyond the original intent including impacting shipping to and from Russia, Japan, and Mexico.

Monocolonal antibodies against peste des petits ruminants were tested for their ability to distinguish between the viruses of peste des petits ruminants and rinderpest in histologic sections. A monoclonal antibody was found which has excellent specificity and could be used to differentiate the two viruses in small ruminants during an outbreak.

During FY 1993, the NVSL assumed the histopathologic diagnostic responsibility for the Agency's BSE Surveillance Program and sampled 290 brain tissues from suspected BSE infected cattle. This responsibility was previously-contracted out.

## CONTINGENCY FUNDS

### Avian Influenza

In January 1993, a Pennsylvania turkey flock was identified as having been exposed to and infected by avian influenza (AI). The trace-out from this flock implicated the live poultry markets in Philadelphia, New Jersey, and New York City. The AI virus was isolated from 11 of the 41 (27 percent) live poultry markets in New York, 5 of the 28 (18 percent) markets and 1 backyard flock in New Jersey, and 1 of 2 (50 percent) markets and 1 backyard flock in Pennsylvania.

The premises were cleaned, disinfected, and retested. The last location, a New York market, became free of the virus in April 1993. Trace-outs were made to over 620 farms and premises in the north, east, and mid-Atlantic areas. Poultry on 13 premises showed previous evidence of exposure to this virus subtype. This virus was non-pathogenic to poultry and the surveillance and control measures were precautionary. Surveillance in Florida identified similar virus activity in three live poultry markets in Miami. This past summer, two additional isolations of the AI virus were identified in ratites, emus, and rheas, in three premises in Texas and one in North Carolina.

Contingency funds were used to obtain $780,000 of the estimated funds needed to detect, control, and eliminate the outbreaks, with the remaining $185,000 coming from the poultry disease line-item.

### Gypsy Moth

In FY 1993, APHIS conducted or cooperated in gypsy moth control activities at 105 sites in 13 States. Treatments included both aerial and ground applications of Bacillus thruringiensis, Dimilin, and Gypcheck, as well as mass trapping operations. Infestations occurred as a result of the movement of outdoor household goods and uncertified nursery stock. APHIS and the U.S. Forest Service will continue to conduct control programs in isolated areas to prevent artificial movement of this pest.

### Pine Shoot Beetle (PSB)

PSB was first detected in a Christmas tree plantation on July 1, 1992, in Lorain County, Ohio. Subsequent surveys have detected the insect in 92 counties within 6 States: Ohio, New York, Pennsylvania, Indiana, Michigan, and Illinois. This beetle is reported to be the most destructive pest of pine in Europe. Without the current program, the PSB could spread with conservative potential losses and increased production costs of no less than $740 million in the entire U.S. to approximately $3 billion in Georgia alone over the next 30 years.

In early FY 1993, regulatory actions to control the interstate movement of regulated articles out of the quarantine area were imposed by APHIS and the States. The infested States supported the cooperative program with interstate quarantines and cost sharing. In addition, APHIS conducted detection surveys at high risk locations throughout the United States and extensive delimiting surveys around the known infested areas. Results indicated that there were no major PSB expansions into new States.

Potato Virus Y (PVY-N)

PVY-N is a virus that attacks potato and tobacco crops, reducing their yields every year. If this disease becomes established in the United States, losses are estimated to be in excess of 10 percent of the $5.2 billion potato and tobacco industries.

In FY 1993, APHIS met with representatives of the potato and tobacco industry, State departments of agriculture, Agriculture Canada, and the scientific community to discuss possible solutions to eradicate and avoid the spread of PVY-N. As a result, guidelines for a potato seed certification that should eliminate any threat of spreading PVY-N were developed. It was also determined that it is not cost-effective to perform additional survey and regulatory measures because eradication would not be guaranteed. Implementation of the seed certification system will allow for the removal of the current PVY-N regulatory system and permit resumption of normal trade of potatoes between the United States and Canada.

APHIS is waiting for comments on the proposal to remove those portions of the regulations that deal with PVY-N in Canada. When this process is completed, PVY-N will be regulated through the potato seed certification that the affected potato growing States are currently implementing.

Scrapie

In FY 1993, contingency funds were made available for scrapie indemnity. The indemnity program provided for the total depopulation of infected or source flocks or, at the discretion of APHIS and based on an epidemiological investigation, depopulation of high-risk animals in infected or source flocks. This program was limited to 6 months to encourage owners of eligible animals to promptly apply for indemnity and facilitate a rapid and thorough "clean-up" of flocks that may spread scrapie.

A total of $1,016,300 in indemnity payments was made for 8,952 animals in 96 flocks. Total depopulation was carried out in 79 of these flocks and partial depopulation involving only high-risk animals was carried out in 11 of the flocks. In the remaining six flocks, a single animal was purchased for diagnostic purposes. APHIS had estimated receiving $2 million in indemnity claims. This estimate was based on 200 known infected sheep and goat flocks of 60 animals each and the belief of the Negotiated Rulemaking Committee that 70 percent of these animals would be registered and 30 percent would be unregistered. Some ranchers may have been dissuaded to apply for indemnification because the indemnity plan lowered the amount of indemnity paid and because of new requirements in the revised regulations. These regulations required flock owners to participate in the flock certification program. Also, the plan had specific requirements for flock recordkeeping, new animal purchase, flock depopulations, actions upon animal deaths, and submission of diagnostic samples.

Screwworm

An outbreak of screwworm occurred in Mexico in FY 1992, with 61 positive cases having been detected in five Mexican States during the fiscal year. In response to this outbreak, the United States and Mexico initiated an emergency eradication effort involving intensive field surveillance and sterile fly dispersal in the affected areas and neighboring countries. On May 21, 1993, a positive sample was found in the State of Veracruz, Mexico, in an area just outside of the 1992

eradication area. Four additional cases were detected in a small area near the junction of the two Gulf Coast Mexican States of Veracruz and Tamaulipas. The last positive sample in this outbreak was collected on June 17, 1993. Eradication activities for this outbreak ended in December 1993. In addition to $825,000 in contingency funds provided in FY 1992, another $1,575,000 was provided in FY 1993.

The United States/Mexico Commission production facility produced over 11 billion sterile insects during FY 1993, of which 3.6 billion were dedicated to the outbreak.

Tuberculosis (TB)

TB is a chronic, sometimes acute disease affecting cattle and dairy herds. On October 9, 1992, the Hillcrest Dairy Farm in El Paso, Texas, was tested for TB. Of the 663 animals tested, 269 were diagnosed positive for the disease. APHIS used $649,000 of contingency funds to depopulate the herd. Through indemnity payments, the owner was able to more efficiently manage the termination and resumption of his dairy operation. The funds were also used to remove other reactor cattle that were disclosed throughout the year, and to remove and indemnify exposed cattle that had been sold to other herds.

In FY 1993 contingency funds were released for the following programs:

FY 1993 OBLIGATIONS
(dollars in thousands)

| | Available | Obligated | Balance |
|---|---|---|---|
| Avian influenza | $ 780 | $ 555 | $ 225 |
| Gypsy moth | 729 | 664 | 65 |
| Necrotic strain of Potato Virus Y | 752 | 360 | 392 |
| Pine shoot beetle | 635 | 615 | 20 |
| Salmonella enteritidis | 166 | 127 | 39 |
| Scrapie | 1,920 | 890 | 1,030 |
| Screwworm | 1,575 | 1,575 | 0 |
| Chrysanthemum White Rust | 402 | 402 | 0 |
| Tuberculosis | 602 | 602 | 0 |
| Unallocated | | | 315 |
| Carryover into FY 1994 | | | 2,086 |

## ANIMAL AND PLANT HEALTH INSPECTION SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter is enclosed in brackets):

Buildings and Facilities

1 For plans, construction, repair, preventive maintenance, environmental support, improvement, extension, alteration, and purchase of fixed equipment or facilities, as authorized by 7 U.S.C. 2250, and acquisition of land as authorized by 7 U.S.C. 428a, [$10,145,000] $6,973,000, to remain available until expended (7 U.S.C. 2209b).

This change would provide authority for funding major preventive maintenance projects identified under the newly established APHIS Facilities Maintenance Program. The change would also provide APHIS with the authority to fund an environmental support program. It is anticipated that the need to be environmentally conscious will be a major factor on how the Agency develops its facilities. We now must adopt and comply with the Clean Water and Clean Air Acts, and safely and effectively monitor how we store hazardous waste and use underground storage tanks.

### BUILDINGS AND FACILITIES

| | |
|---|---|
| Appropriations Act, 1994 | $10,145,000 |
| Budget Estimate, 1995 | 6,973,000 |
| Decrease in Appropriation | - 3,172,000 |

### SUMMARY OF INCREASES AND DECREASES
(on basis of appropriation)

| Item of Change | 1994 Estimated | Program Changes | 1995 Estimated |
|---|---|---|---|
| Decrease of one-time construction projects in 1994 | $3,172,000 | -$3,172,000 | -- |
| Basic buildings and facilities repair, alterations, and preventive maintenance | 6,973,000 | -- | 6,973,000 |
| Total Available | 10,145,000 | -3,172,000 | 6,973,000 |

## BUILDINGS AND FACILITIES

### PROJECT STATEMENT
(On basis of available funds)

| | 1993 Actual | 1994 Estimated | Increase or Decrease | 1995 Estimated |
|---|---|---|---|---|
| Total Obligations... | $12,044,000 | $10,145,000 | -$3,172,000 | $6,973,000 |
| Unobligated balance available, start of year..... | -40,216,000 | -38,572,000 | -- | -- |
| Unobligated balance available, end of year..... | 38,572,000 | 18,282,000 | -- | -- |
| Total Appropriated funds..... | $10,400,000 | $10,145,000 | (1) -$3,172,000 | $6,973,000 |

### EXPLANATION OF PROGRAM

The APHIS appropriation "Buildings and Facilities" funds major non-recurring construction projects in support of specific program activities and recurring construction, alterations, preventive maintenance, and repairs of existing APHIS facilities.

### JUSTIFICATION OF INCREASES AND DECREASES

(1) A decrease of $3,172,000 for buildings and facilities for one-time construction projects in FY 1994 ($10,145,000 available in FY 1994).

Need for Change. Construction or design of the one-time projects identified in the FY 1994 request will be completed.

Nature of Change. The following projects will be built or designed with the funds requested in FY 1994 (in millions of dollars):

| | |
|---|---|
| Construction of Phase IB of the Denver Wildlife Research facility in Ft. Collins, Colorado..... | $2.000 |
| Replacement of the Animal Predator facility in Millville, Utah..... | 0.500 |
| Expansion of the Plant Methods Development Rearing facility in Mission, Texas..... | 0.672 |
| | $3.172 |

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

BUILDINGS AND FACILITIES

STATUS OF MAJOR CONSTRUCTION PROJECTS

Current Activities: The Buildings and Facilities appropriation funds major non-recurring construction projects in support of program activities and recurring construction, alterations, and repairs of existing facilities. The on-going major construction programs as of October 1993 are:

1. Plant Germplasm Quarantine Laboratory, Beltsville, Maryland - ($3,800,000 available from the Fiscal Year (FY) 1990 appropriation).

   The construction contract was awarded in April 1993. Construction began in April and completion is expected in April 1994. Through September 30, 1993, $2,790,370 had been obligated.

2. Animal Research Building, Phase Ia, Fort Collins, Colorado - ($6,000,000 available from the FY 1990 appropriation).

   The construction contract was awarded in the fourth quarter of 1993. Construction began in August 1993, and completion is expected in December, 1994. Through September 30, 1993, $6,000,000 had been obligated.

3. Outdoor Animal Holding Pens, Phase Ib, Fort Collins, Colorado - ($2,500,000 available from the FY 1992 appropriation).

   A design contract was awarded in October 1993. Design is anticipated to be completed in June, 1994. Through September 30, 1993, $775,041 had been obligated.

4. National Plant Germplasm Quarantine Center: Phase I, Beltsville, Maryland - ($12,000,000 available from the FY 1991 appropriation).

   The Statement of Work for design is currently being developed by APHIS. Design will be completed in FY 1994. Construction is expected to begin in the second quarter of FY 1995 with completion in the second quarter of FY 1996. Through September 30, 1993, no funds had been obligated.

5. National Germplasm Quarantine Center: Phase II, Beltsville, Maryland - ($12,000,000 available from the FY 1992 appropriation).

   The Statement of Work for design is currently being developed by APHIS. Design is anticipated to be completed by the first quarter of FY 1995. Construction is estimated to begin by the third quarter of FY 1995. Through September 30, 1993, no funds had been obligated.

6. Plum Island Animal Disease Center Consolidation, New York - ($5,000,000 available from the FY 1991 appropriation and $1,737,450 available from the FY 1992 appropriation).

   This was a joint construction project between the Agricultural Research Service (ARS) and APHIS. ARS awarded the contract for construction during FY 1993. All funds were obligated in FY 1992.

## PASSENGER MOTOR VEHICLES

The 1995 Budget Estimates propose the purchase of 170 replacement passenger motor vehicles, approximately 25 percent of the Agency fleet.

The passenger motor vehicles of the Service are used by veterinarians, animal health technicians, plant protection and quarantine officers, inspectors, wildlife biologists, and other technical personnel in the performance of their duties. APHIS personnel use passenger motor vehicles during their daily activities to travel between individual ranches, farms, orchards, nurseries, ports, and other commercial firms. Use of common carriers is not feasible because of the need to travel in mostly rural areas. Comparative cost studies have shown that it is more economical to use Government-owned vehicles rather than reimburse employees for the use of privately-owned vehicles.

The Service's policy is to pool vehicles for use as much as possible. This results in a minimum of passenger motor vehicles and reduces overall operating costs. Personnel are required to maintain and submit operational data. These periodic surveys are made to determine the continued need for vehicles and their condition.

Replacement of passenger motor vehicles. APHIS proposes replacing 170 of the 679 passenger motor vehicles in the Agency fleet. Of the 679 vehicles, 565 vehicles are estimated to be in operation at the beginning of FY 1994, 87 vehicles have been sold and not yet replaced, and 27 vehicles have been ordered and not yet delivered. These 565 vehicles are located in field locations and are used for pest and disease exclusion, plant and animal health monitoring, pest and disease management, animal care, and scientific and technical services programs. The control, eradication, testing, and inspection activities are essential in protecting the Nation's multi-billion dollar agriculture industry. All vehicles proposed for replacement have 60,000 or more miles or are more than 6 years of age.

Age and mileage data for passenger motor vehicles on hand as of September 30, 1993, are as follows:

| Age Data | | | Mileage Data | | |
|---|---|---|---|---|---|
| Age-Year Model | Number of Vehicles | Percent of Total | Lifetime Mileage (thousands) | Number of Vehicles | Percent of Total |
| 1988 & older | 171 | 30% | 80 or more | 124 | 22% |
| 1989 | 32 | 6% | 60 - 80 | 95 | 17% |
| 1990 | 153 | 27% | 40 - 60 | 111 | 20% |
| 1991 | 111 | 20% | 20 - 40 | 137 | 24% |
| 1992 | 66 | 11% | 20 or less | 98 | 17% |
| 1993 | 32 | 6% | | | |
| TOTAL | 565 | 100% | TOTAL | 565 | 100% |

## AIRCRAFT

There are presently 23 aircraft in the Agency fleet, 9 for domestic plant pest and disease programs, 12 for animal damage control programs and 2 for international plant and animal pest exclusion programs. During FY 1993, APHIS acquired three surplus aircraft from the Border Patrol of Immigrations and Naturalization Service at no cost. APHIS aircraft make aerial surveys and aerial application tests, are used for insect trapping operations, and are used to demonstrate special equipment for suppression of destructive insects attacking crops.

Replacement aircraft, if purchased, would be used primarily in pest and disease management programs. These aircraft are sometimes used to supervise and observe contract planes which are newer, faster models than those the Agency has available. While this replacement authority is requested each year in the appropriation act, the aircraft are replaced only when necessary to maintain the fleet in safe and efficient operating condition.

# AGRICULTURAL MARKETING SERVICE

## Purpose Statement

The Agricultural Marketing Service (AMS) was established by the Secretary of Agriculture on April 2, 1972. AMS carries out programs authorized by approximately 50 different statutory authorities, the primary ones being the Agricultural Marketing Act of 1946 (7 U.S.C. 1621-1627); the Agricultural Marketing Agreement Act of 1937 (7 U.S.C. 601-602, 608a-608e, 610, 612, 614, 624, 671-674); the U.S. Cotton Standards Act (7 U.S.C. 51-65); the Cotton Statistics and Estimates Act (7 U.S.C. 471-476); the Tobacco Inspection Act (7 U.S.C. 511-511q); the Perishable Agricultural Commodities Act (7 U.S.C. 499a-499s); the Egg Products Inspection Act (21 U.S.C. 1031-1056); Section 32 (15 U.S.C. 713c); Transportation Provisions of the Agricultural Adjustment Act of 1938 (7 USC 1281 et seq.); Agricultural Trade and Assistance Act of 1954 (7 USC 1427, 1431, 1691, et seq.); Rural Development Act of 1972 (7 USC 2662, 2663); International Carriage of Perishable Foodstuff Act of 1982 (7 USC 4401-4406); Capper-Volstead Act (7 USC 291, 292); Pesticide Recordkeeping (7 USC 135i-1); Plant Variety Protection Act (7 USC 2321 note.); and numerous research and promotion acts.

The primary objective of AMS is to carry out a wide range of programs that facilitate the marketing and distribution of agricultural products; ensure fair trading practices; and assure consumers of an abundant, high quality food supply. AMS promotes a strategic marketing perspective that adapts product and marketing decisions to consumer demands, as well as to changing domestic and international marketing practices and technologies. This is achieved through the collection and dissemination of market news information, the establishment of grading standards, the promotion of an efficient agricultural transportation system, the provision of inspection and grading services, and through various marketing development programs. Approximately seventy percent of the funds needed to finance these activities are derived from user fees.

The Agricultural Marketing Service administers the following programs:

1. Market news service: The market news program entails the collection, analysis and dissemination of supply, inventories, prices and other market information for numerous agricultural commodities, including cotton and cottonseed; dairy products; fruits and vegetables; livestock, meat and grains; poultry products; and tobacco.

   Market news provides timely, accurate, and unbiased information to assist producers, growers, and marketers of farm products in making crucial decisions on where and when to sell, and at what price. The collection of market information is a joint effort by Federal and State reporters.

2. Inspection, grading and standardization services: AMS develops and maintains standards of quality and condition for use in the trading of agricultural commodities. These standards provide a common language for buyers and sellers of commodities both here and abroad. AMS provides grading and certification services upon request for numerous agricultural commodities, including cotton, dairy products, fruits and vegetables, livestock and meat, poultry and eggs, and tobacco. AMS also provides continuous in-plant inspection to manufacturers of liquid, frozen, or dried egg products to ensure that egg products are wholesome, unadulterated, and fit for human consumption; inspects egg handlers and hatcheries quarterly to ensure the proper disposition of restricted eggs; and controls the importation of egg products to ensure that U.S. requirements are met.

Inspection and grading activities are performed by Federal employees and Federally-supervised State employees. The egg products inspection program is mandatory and is funded from appropriations. Grading activities are provided on a fee-for-service basis.

The laboratory services program conducts tests on agricultural commodities to aid in assigning grades to submitted samples. The program also assures that commercial and private laboratories are performing tests in a consistent, uniform, and accurate manner.

3. Market protection and promotion services: AMS administers programs under several laws which authorize the collection of pesticide residue information, ensure proper marketing practices, stimulate innovative and improved commodity marketing, and provide assistance to industry-sponsored activities. The Pesticide Data program provides statistically-based data on pesticide use and residue levels for selected commodities to public agencies for policy making, regulatory and educational purposes. The Pesticide Recordkeeping program establishes Federal regulations requiring non-commercial applicators to keep records of pesticides used in agricultural production. The Federal Seed Act requires truthful labeling of seeds shipped in interstate commerce to prevent misrepresentation. The Plant Variety Protection Act encourages the development of novel varieties of sexually reproduced plants by providing patent-like protection to developers. The Organic Certification program will certify that organically produced food products meet national standards. In addition, AMS provides oversight and direction to several industry-funded research and promotion programs. There are active research and promotion programs for beef, cotton, dairy products, eggs and egg products, fluid milk, honey, mushrooms, pork, pecans, potatoes, soybeans, and watermelons. These programs are funded by producer assessments collected and used by industry to broaden and enhance local and national markets for various commodities.

4. Transportation services: This program provides technical and administrative direction, coordination, and leadership in the development and execution of agricultural transportation policies and activities. The program's mission is to represent the interests of agriculture and rural communities in the U.S. to assure the availability of an adequate and economical transportation system, domestically and internationally.

5. Wholesale market development: Under this program, AMS provides technical advice and assistance to States and municipalities that are interested in creating or upgrading wholesale market facilities. AMS also conducts cooperative feasibility studies in cooperation with other government agencies and the private sector to evaluate and suggest improvements in the efficiency with which agricultural commodities are handled and marketed.

6. Federal-State marketing improvement program: This program provides matching funds for State Departments of Agriculture projects intended to improve local marketing systems. The aim of the program is to reduce marketing costs for producers and, ultimately, food costs for consumers. Projects include development of innovative marketing techniques, testing study findings in the marketplace, and expanding State expertise in providing service to marketers of agricultural commodities.

7. Perishable Agricultural Commodities Act: This program promotes fair trading in the fruit and vegetable industry. It protects producers, shippers, distributors and retailers of fresh and frozen fruits and vegetables from financial loss due to buyer bankruptcy or unfair and fraudulent practices in the marketing of perishable agricultural commodities. The program also prohibits the unwarranted destruction or dumping of farm products handled for others.

8. Strengthening agricultural markets and producer income (Section 32): This program provides price assistance to producers through the purchase of surplus and, as necessary, other agricultural commodities from regular market outlets. Contracting offices use both Section 32 program funds and appropriated funds of the Food and Nutrition Service to make these purchases. All commodities purchased are transferred to the Food and Nutrition Service for distribution to schools, the elderly, and to other domestic food assistance programs.

   AMS develops and maintains standard food specifications used government-wide to provide a more efficient Federal food procurement service.

   AMS supervises the administration of marketing agreement and order programs and conducts public hearings and referenda to determine producer sentiment toward the establishment of new programs and revisions to current programs. Marketing orders maintain orderly market conditions by establishing minimum prices which handlers pay to producers for milk and dairy products and by regulating the quality, quantity, or size of fruits and vegetables which handlers may market in commercial channels.

9. Work performed for others: AMS provides services for Federal, State, and private industry on a reimbursable basis, primarily in connection with the commodity grading and inspection programs.

AMS headquarters are located in Washington, D.C., with approximately 197 year-round and seasonal field offices. The peak employment period for AMS occurs during the four month period, September through December, due to the seasonal nature of the cotton, tobacco, and fruit and vegetable grading programs. Employment during the peak period averaged 5,811 during FY 1993. As of September 30, 1993, there were 3,552 full-time employees and 1,796 other than permanent full-time employees. Of this number, employees assigned to field office locations totaled 2,789 full-time and 1,775 other than permanent full-time employees.

AGRICULTURAL MARKETING SERVICE

Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Agricultural Marketing Service: | | | | | | |
| Marketing Services | $56,139,000 | 699 | $57,456,000 | 725 | $58,541,000 | 706 |
| Payments to States and Possessions | 1,250,000 | -- | 1,300,000 | -- | 1,250,000 | -- |
| Total | 57,389,000 | 699 | 58,756,000 | 725 | 59,791,000 | 706 |
| Obligations under other USDA appropriations: | | | | | | |
| Agricultural Research Service for statistical services | 10,000 | -- | 10,000 | -- | 10,000 | -- |
| Federal Grain Inspection: Service for statistical services | 231,900 | 4 | 230,000 | 4 | 230,000 | 4 |
| Food & Nutrition Service: for commodity procurement services | 709,000 | 13 | 729,000 | 13 | 729,000 | 13 |
| Food Safety & Inspection: Service for statistical service | 7,000 | -- | -- | -- | -- | -- |
| Foreign Agri. Service for emerging democracies | 743,965 | 2 | 1,402,000 | 5 | 1,402,000 | 5 |
| Office of International Cooperation & Developmt | 173,487 | 2 | 87,000 | 1 | 87,000 | 1 |
| Packers & Stockyards Administration for statistical services | -- | -- | 25,000 | -- | 25,000 | -- |
| National Agricultural Statistical Service for Statistical Services | 10,000 | -- | 10,000 | -- | 10,000 | -- |
| Miscellaneous Reimbursements | 22,000 | -- | 15,000 | -- | 15,000 | -- |
| Total, Other USDA Appropriations | 1,907,352 | 21 | 2,508,000 | 23 | 2,508,000 | 23 |
| Total, Agriculture Appropriations | 59,296,352 | 720 | 61,264,000 | 748 | 62,299,000 | 729 |
| Permanent Appropriations: | | | | | | |
| Funds for Strengthening Markets, Income, and Supply (Section 32) | 4,978,817,276 | 165 | 5,355,068,525 | 170 | 5,701,399,755 | 169 |
| Recovery of prior year obligations | 39,736,525 | -- | | -- | | |
| Carryin | 120,787,568 | -- | 246,300,847 | -- | 289,891,245 | -- |
| Deduct transfers out | -4,351,863,060 | -- | -4,832,053,127 | -- | -5,274,818,000 | -- |
| Deduct carryout | -246,300,847 | -- | -289,891,245 | -- | -300,000,000 | -- |
| Net AMS | 541,177,462 | 165 | 479,425,000 | 170 | 416,473,000 | 169 |
| Perishable Agricultural Commodities Act Fund | 6,920,636 | 125 | 7,820,000 | 127 | 7,881,000 | 127 |
| Total, Permanent Appropriations | 548,098,098 | 290 | 487,245,000 | 297 | 424,354,000 | 296 |
| Non-Federal Funds: | | | | | | |
| American Egg Board for oversight work | 80,000 | 1 | 80,000 | 1 | 80,000 | 1 |
| Beef Board for oversight work | 195,864 | 2 | 200,000 | 2 | 200,000 | 2 |
| Cotton Board for oversight work | 167,333 | 2 | 189,000 | 2 | 189,000 | 2 |
| Dairy Board for oversight work | 470,303 | 5 | 460,000 | 5 | 460,000 | 5 |
| Fluid Milk Board for oversight work | -- | -- | 200,000 | 2 | 200,000 | 2 |
| Freshcut Flowers Board for oversight work | -- | -- | 109,000 | 1 | 109,000 | 1 |
| Honey Board for oversight work | 105,000 | 1 | 94,000 | 1 | 94,000 | 1 |
| Lime Board for oversight work | 14,000 | -- | 99,000 | 1 | 99,000 | 1 |
| Mushroom Board for oversight work | 140,000 | 2 | 96,000 | 1 | 96,000 | 1 |
| Pecan Board for oversight work | 131,000 | 2 | 98,000 | 1 | 98,000 | 1 |

AGRICULTURAL MARKETING SERVICE

Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Pork Board for oversight work | 186,000 | 2 | 200,000 | 2 | 200,000 | 2 |
| Potato Board for oversight work | 158,486 | 2 | 97,000 | 1 | 97,000 | 1 |
| Soybean Board for oversight work | 171,000 | 2 | 300,000 | 3 | 300,000 | 3 |
| Watermelon Board for oversight work | 92,000 | 1 | 99,000 | 1 | 99,000 | 1 |
| Egg products inspection | 960,339 | -- | 924,000 | -- | 924,000 | -- |
| Fees for grading of cotton and tobacco | 46,830,262 | 856 | 55,953,000 | 788 | 57,054,000 | 784 |
| Grading of farm products for producers, processors, and municipal, State and Federal Agencies | 95,596,578 | 1,837 | 100,945,000 | 1,863 | 100,945,000 | 1,860 |
| Milk Market Administrators for Federal Telecommunications System employee compensation & New York Market Administrator | 105,000 | -- | 190,000 | -- | 190,000 | -- |
| States for collection & dissemination of market news information | 144,843 | 4 | 126,000 | 4 | 126,000 | 4 |
| Total, Non-Federal Funds | 145,548,008 | 2,719 | 160,459,000 | 2,679 | 161,560,000 | 2,672 |
| Milk Market Orders Assessment Funds | 36,693,709 | 556 | 39,263,000 | 556 | 42,011,000 | 556 |
| Total, Agricultural Marketing Service | 789,636,167 | 4,285 | 748,231,000 | 4,280 | 690,224,000 | 4,253 |

AGRICULTURAL MARKETING SERVICE

Permanent Positions by Grade and Staff-Year Summary
1993 and Estimated 1994 and 1995

| GRADE | 1993 | | | 1994 | | | 1995 | | |
|---|---|---|---|---|---|---|---|---|---|
| | HEAD-QTRS. | FIELD | TOTAL | HEAD-QTRS. | FIELD | TOTAL | HEAD-QTRS. | FIELD | TOTAL |
| ES-6 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| ES-5 | 2 | -- | 2 | 2 | -- | 2 | 2 | -- | 2 |
| ES-4 | 8 | -- | 8 | 8 | -- | 8 | 8 | -- | 8 |
| ES-2 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| ES-1 | 1 | -- | 1 | 1 | -- | 1 | -- | -- | -- |
| GS/15 | 31 | 1 | 32 | 31 | 1 | 32 | 29 | 1 | 30 |
| GS/14 | 82 | 18 | 100 | 82 | 18 | 100 | 79 | 18 | 97 |
| GS/13 | 132 | 56 | 188 | 135 | 58 | 193 | 131 | 56 | 187 |
| GS-12 | 170 | 176 | 346 | 172 | 179 | 351 | 172 | 178 | 350 |
| GS-11 | 71 | 237 | 308 | 74 | 241 | 315 | 71 | 239 | 310 |
| GS-10 | 1 | 7 | 8 | 1 | 7 | 8 | 1 | 7 | 8 |
| GS-9 | 48 | 756 | 804 | 48 | 756 | 804 | 48 | 756 | 804 |
| GS-8 | 8 | 258 | 266 | 9 | 265 | 274 | 8 | 263 | 271 |
| GS-7 | 61 | 323 | 384 | 62 | 324 | 386 | 61 | 323 | 384 |
| GS-6 | 62 | 50 | 112 | 63 | 53 | 116 | 62 | 52 | 114 |
| GS-5 | 57 | 211 | 268 | 57 | 212 | 269 | 57 | 211 | 268 |
| GS-4 | 43 | 157 | 200 | 44 | 159 | 203 | 44 | 158 | 202 |
| GS-3 | 14 | 30 | 44 | 14 | 30 | 44 | 14 | 30 | 44 |
| GS-2 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| Milk Market Orders Administrators & Staff. | -- | 549 | 549 | -- | 570 | 570 | -- | 570 | 570 |
| Ungraded Positions | 2 | 27 | 29 | 2 | 27 | 29 | 2 | 27 | 29 |
| Total Permanent Positions | 796 | 2,856 | 3,652 | 808 | 2,900 | 3,708 | 792 | 2,889 | 3,681 |
| Unfilled Positions end-of-year | -33 | -48 | -81 | -- | -- | -- | -- | -- | -- |
| Total, Permanent Employment, end-of year | 763 | 2,808 | 3,571 | 808 | 2,900 | 3,708 | 792 | 2,889 | 3,681 |
| Staff-Years: Ceiling | 727 | 3,558 | 4,285 | 749 | 3,531 | 4,280 | 733 | 3,520 | 4,253 |

AGRICULTURAL MARKETING SERVICE

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| Personnel Compensation: | | | |
| Headquarters | $9,719,476 | $10,770,000 | $10,468,000 |
| Field | 16,613,756 | 17,728,000 | 18,065,000 |
| 11 Total personnel compensation | 26,333,232 | 28,498,000 | 28,533,000 |
| 12 Personnel benefits | 5,688,014 | 6,101,000 | 6,118,000 |
| 13 Benefits for former personnel | 61,629 | 79,000 | 77,000 |
| Total personnel compensation and benefits | 32,082,875 | 34,678,000 | 34,728,000 |
| Other Objects: | | | |
| 21 Travel | 1,700,416 | 2,016,000 | 1,981,000 |
| 22 Transportation of things | 99,694 | 102,000 | 101,000 |
| 23.2 Rental payments to others | 543,317 | 492,000 | 484,000 |
| 23.3 Communications, utilities and misc. charges | 2,078,639 | 2,134,000 | 2,327,000 |
| 24 Printing and reproduction | 637,034 | 412,000 | 405,000 |
| 25.1 Consulting services | 208,000 | 175,000 | 100,000 |
| 25.2 Other services | 10,320,319 | 13,252,000 | 14,247,000 |
| 25.3 Purchases of goods and services from Government Accounts | 2,425,852 | 2,426,000 | 2,426,000 |
| 25.5 Research and development contracts | 202,500 | 203,000 | 203,000 |
| 26 Supplies and materials | 1,037,925 | 612,000 | 602,000 |
| 31 Equipment | 4,090,490 | 954,000 | 937,000 |
| 32 Land and structures | 4,049 | -- | |
| 41 Grants, subsidies and contributions | 1,233,043 | 1,300,000 | 1,250,000 |
| 43 Interest and dividends | 2,000 | -- | -- |
| Total other objects | 24,583,278 | 24,078,000 | 25,063,000 |
| Total obligations | 56,666,153 | 58,756,000 | 59,791,000 |
| Position Data: | | | |
| Average Salary, ES positions | $106,769 | $111,285 | $116,576 |
| Average Salary, GS positions | 31,627 | 32,748 | 33,765 |
| Average Grade, GS positions | 8.80 | 8.81 | 8.81 |

## AGRICULTURAL MARKETING SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Marketing Services:

> For necessary expenses to carry on services related to consumer protection, agricultural marketing and distribution, transportation, and regulatory programs as authorized by law, and for administration and coordination of payments to States; including field employment pursuant to section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed $90,000 for employment under 5 U.S.C. 3109, [$61,614,000;] $58,541,000; of which not less than [$2,346,000] $2,326,000 shall be available for the Wholesale Market Development Program for the design and development of wholesale and farmer market facilities for the major metropolitan areas of the country; Provided, That this appropriation shall be available pursuant to law (7 U.S.C. 2250) for the alteration and repair of buildings and improvements, but, unless otherwise provided, the cost of altering any one building during the fiscal year shall not exceed 10 per centum of the current replacement value of the building.
>
> [Fees may be collected for the cost of standardization activities, as established by regulation pursuant to law (31 U.S.C. 9701).]

The change in language is to delete appropriation language authorizing the collection of fees for standardization activities. A change to the authorizing legislation will be submitted to the Congress instead of authorizing new user fees in the appropriation language.

## MARKETING SERVICES -- CURRENT LAW

| | | |
|---|---|---|
| Appropriations Act, 1994 | | $61,614,000 |
| Budget Request, 1995 | | 58,541,000 |
| Decrease in Appropriation | | -3,073,000 |
| Adjustments in 1994: | | |
| Appropriations Act, 1994 | $61,614,000 | |
| Activities transferred per Secretary's Reorganization Authority a/ | -4,158,000 | |
| Adjusted base for 1994 | | 57,456,000 |
| Budget Request, Current Law, 1995 | | 58,541,000 |
| Increase over adjusted 1994 | | +1,085,000 |

a/ Reflects the FY 1994 transfer of $4,158,000 to Agricultural Cooperative Service pursuant to the Secretary's Reorganization Authority.

## MARKETING SERVICES - PROPOSED LEGISLATION

| | |
|---|---|
| Budget Estimate, Current Law, 1995 | $58,541,000 |
| Change due to proposed legislation | -6,148,000 |
| Net Request, President's 1995 Budget Request | 52,393,000 |

## SUMMARY OF INCREASES AND DECREASES -- CURRENT LAW
(On basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Program Changes | 1995 Estimated |
|---|---|---|---|---|
| Market News Service | $19,452,000 | +$143,000 | -$220,000 | $19,375,000 |
| Inspection and Standardization | 17,452,000 | +134,000 | +175,000 | 17,761,000 |
| Market Protection and Promotion | 15,571,000 | +34,000 | +849,000 | 16,454,000 |
| Wholesale Market Development | 2,346,000 | +15,000 | -35,000 | 2,326,000 |
| Transportation Services | 2,635,000 | +23,000 | -33,000 | 2,625,000 |
| Total Available | 57,456,000 | +349,000 | +736,000 | +58,541,000 |

## PROJECT STATEMENT -- CURRENT LAW
(On basis of adjusted appropriation)

| | 1993 Actual | | 1994 Estimated | | Increase or | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Decrease | Amount | Staff-Years |
| 1. Market News Service: | | | | | | | |
| (a) Cotton and cottonseed | $1,895,700 | 26 | $2,042,000 | 26 | -$6,000 | $2,036,000 | 25 |
| (b) Dairy products | 648,462 | 9 | 564,000 | 8 | -2,000 | 562,000 | 8 |
| (c) Fruits and vegetables | 5,691,648 | 103 | 5,588,000 | 99 | -23,000 | 5,565,000 | 98 |
| (d) Livestock, meats&grain | 7,494,037 | 120 | 7,703,000 | 122 | -34,000 | 7,669,000 | 120 |
| (e) Poultry products | 2,616,190 | 39 | 2,594,000 | 40 | -9,000 | 2,585,000 | 39 |
| (f) Tobacco | 734,196 | 15 | 961,000 | 19 | -3,000 | 958,000 | 18 |
| Total, Market News Service | 19,080,233 | 312 | 19,452,000 | 314 | -77,000 (1) | 19,375,000 | 308 |

PROJECT STATEMENT
(On basis of adjusted appropriation)

| | 1993 Actual | | 1994 Estimated | | Increase or Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | | Amount | Staff-Years |
| 2. Inspect. and Standardiza. | | | | | | | |
| (a) Egg products inspection | 12,247,744 | 202 | 13,000,000 | 209 | +339,000 | 13,339,000 | 209 |
| (b) Standardiza. | 4,658,760 | 69 | 4,452,000 | 70 | -30,000 | 4,422,000 | 68 |
| Total, Inspec. & Standardiza. | 16,906,504 | 271 | 17,452,000 | 279 | +309,000 (2) | 17,761,000 | 277 |
| 3. Market Protection and Promotion: | | | | | | | |
| (a) Federal Seed Act | 1,071,496 | 15 | 1,191,000 | 16 | -22,000 | 1,169,000 | 15 |
| (b) Market development and assistance. | 13,543,300 | 39 | 14,380,000 | 52 | +905,000 | 15,285,000 | 44 |
| Total, Market Protection and Promotion | 14,614,796 | 54 | 15,571,000 | 68 | +883,000 (3) | 16,454,000 | 59 |
| 4. Wholesale Market Development | 2,276,214 | 27 | 2,346,000 | 29 | -20,000 (4) | 2,326,000 | 28 |
| 5. Transportation Svcs. | 2,555,363 | 35 | 2,635,000 | 35 | -10,000 (5) | 2,625,000 | 34 |
| Unobligated bal | 705,890 | -- | -- | -- | -- | | |
| Total, available or estimate | 56,139,000 | 699 | 57,456,000 | 725 | +1,085,000 | 58,541,000 | 706 |
| Transfer to: | | | | | | | |
| Office of Asst. Secretary for Administration | +28,000 | -- | -- | -- | -- | -- | -- |
| Economic Research | +29,000 | -- | -- | -- | -- | -- | -- |
| World Agri. Outlook Board. | +25,000 | -- | -- | -- | -- | -- | -- |
| Agricultural Cooperative Service | | -- | +4,158,000 | -- | -4,158,000 | -- | -- |
| Total appropriation | 56,221,000 | 699 | 61,614,000 | 725 | -3,073,000 | 58,541,000 | 706 |

EXPLANATION OF PROGRAM

1. Market News Service:

The market news program is carried out under the following authorities:

Agricultural Marketing Act of 1946
Cotton Statistics and Estimates Act of 1927
Naval Stores Act
Tobacco Inspection Act of 1935
U.S. Cotton Futures Act
Peanut Statistics Act

Market news information is gathered on various agricultural products including dairy products, fruits and vegetables, livestock and meat, grain, poultry, eggs, cotton and tobacco. Market news provides those engaged in the production and marketing of farm products, as well as related industries with timely, accurate, and unbiased market information. This market information covers local, regional, national, and international markets and includes current data on supply, movement, contractual agreements, inventories, and prices at specific markets for practically all agricultural commodities. On a day-to-day basis those utilizing market news information are in a position to make the critical decisions of where and when to sell, and at what price.

Market information is obtained by both Federal and State reporters at trading points or by telephone. Information collected by these reporters is analyzed and disseminated immediately to the agricultural community by automatic telephone answering devices, facsimile machines, printed reports, radio and television, newspaper columns, and data networks. National information is integrated with local information and released in a form easily understood by the industry and locality served. Subscription fees are now charged for all printed and mailed reports except tobacco, where mailed reports are free to producers. Legislation authorizing the investment of these funds is contained in the 1990 Food, Agriculture, Conservation, and Trade Act.

Market News Workload Data, FY 1993:

| Commodity Group | Field Offices | | Buyers and Sellers Interviewed | Printed Reports Issued (Thous.) | Number on Mailing List | No. of Federal Reporters | No. of Mkts. Cov'd |
|---|---|---|---|---|---|---|---|
| | Year Round | Seasonal | | | | | |
| Cotton and Cottonseed | 4 | -- | 2,923 | * 87 | 2,605 | 8 | 11 |
| Dairy and Dairy Products | 1 | -- | 460 | 113 | 2,698 | 5 | 58 |
| Fruits and Vegetables | 35 | 12 | 10,382 | 1,154 | 17,162 | 49 | 812 |
| Livestock, Grain, and Meat | 47 | -- | 15,300 | 313 | 4,676 | 69 | 672 |
| Poultry and Eggs | 13 | -- | 1,700 | 46 | 511 | 24 | 81 |
| Tobacco | 2 | 2 | *575 | *251 | *2,052 | 5 | 135 |

* Change in method of reporting

2. Inspection, Grading and Standardization:

This program is carried out under the following authorities:

Agricultural Marketing Act of 1946
Agricultural Fair Practices Act
Cotton Statistics and Estimates Act of 1927
U.S. Cotton Futures Act

United States Cotton Standards Act
Naval Stores Act
Tobacco Inspection Act of 1935
Tobacco Statistics Act
Wool Standards Act
Egg Products Inspection Act
Dairy and Tobacco Adjustment Act of 1983
Food Security Act of 1985

This program covers three distinct areas that facilitate the domestic and international marketing of agricultural commodities: development and maintenance of commodity quality standards, egg products inspection, and commodity grading.

a. Standards. AMS develops, reviews, and maintains agricultural commodity standards that describe product quality attributes such as taste, color, texture, yield, weight, and physical condition. Standards are developed for use in grading cotton, tobacco, naval stores, wool, mohair, livestock and meat, poultry, eggs, fruits, vegetables, nuts, and dairy products.

Standardization Workload Data:

| | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|
| International and U.S. standards in effect, end of year | 593 | 593 | 594 |
| Number of commodities covered | 236 | 236 | 236 |
| Standards reviewed | 119 | 119 | 117 |
| Standards revised | 1 | 10 | 16 |

b. Inspection. This activity involves continuous mandatory inspection of egg processing plants producing liquid, frozen, or dried egg products to ensure products sold are wholesome, unadulterated and truthfully labeled. In cooperation with State Departments of Agriculture, shell egg grading operations are inspected at least four times yearly to control the disposition of certain types of undergrade and restricted eggs.

Egg Products Inspection Workload Data:

| | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|
| Egg products inspected (million pounds) | 2,388 | 2,580 | 2,787 |
| Egg products accepted (million pounds) | 53 | 55 | 55 |
| Egg products shifts | 131 | 132 | 132 |
| Egg handler surveillance visits | 6,520 | 5,725 | 5,185 |
| States and Commonwealths with cooperative agreements | 52 | 52 | 52 |
| Official samples submitted for analysis: | | | |
| Food chemistry and microbiology | 26,445 | 26,500 | 26,500 |
| Chemical residues | 426 | 430 | 430 |

c. Grading. The grading process involves the application of quality standards to agricultural commodities. Grading services are offered to users who pay published fees for services provided. These services facilitate marketing by permitting purchasers to buy commodities without having to inspect them personally and by providing an impartial evaluation of the quality of products prior to their sale. AMS certification services provide assurance to buyers that the products they receive are the quantity and quality specified in their contract with the seller.

Grading Workload Data:

| | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|
| Cotton Classifications (thousand bales): | | | |
| Smith-Doxey Amendment | 15,770 | 15,800 | 15,800 |
| United States Cotton Standards Act: | | | |
| Public Classing Service | 1 | 1 | 1 |
| U.S. Cotton Futures Act | 221 | 275 | 300 |
| Total, Cotton Classifications | 15,992 | 16,076 | 16,101 |
| Poultry and Egg Grading: | | | |
| Poultry products graded (includes rabbits - million pounds) | 16,110 | 16,803 | 17,551 |
| Shell eggs graded (million dozen) | 1,486 | 1,479 | 1,468 |
| Pounds accepted (poultry - million pounds) | 900 | 900 | 900 |
| Dozens accepted (eggs-million dozen) | 599 | 590 | 580 |
| Meat Grading: | | | |
| Meat graded (million pounds) | 18,000 | 18,000 | 18,000 |
| Meat accepted (million pounds) | 1,500 | 1,500 | 1,500 |
| Livestock Grading: | | | |
| Livestock graded (million pounds) | 16.3 | 40 | 40 |
| Fresh Fruit, Vegetable & Nut Grading: | | | |
| Product inspected (million pounds) | 80,000 | 83,000 | 83,500 |
| Processed Fruit and Vegetable Grading: | | | |
| Product inspected (million pounds) | 9,500 | 9,600 | 9,600 |
| Dairy Grading: | | | |
| Butter graded (million pounds) | 1,006 | 1,100 | 1,100 |
| Cheese graded (million pounds) | 83 | 100 | 150 |
| Dry milk graded (million pounds) | 333 | 400 | 500 |
| Other products graded (million pounds) | 134 | 140 | 160 |
| Plant inspections | 906 | 900 | 950 |
| Tobacco Grading: | | | |
| Flue-cured (million pounds) | 836 | 811 | 811 |
| Fire-cured (million pounds) | 18 | 20 | 20 |
| Dark air-cured (million pounds) | 9 | 10 | 10 |
| Burley (million pounds) | 736 | 714 | 714 |
| Tobacco Reinspection (million pounds) | 266 | 258 | 258 |
| Imported Tobacco Inspection (million pounds) | 598 | 580 | 580 |
| TOTAL, Tobacco Inspection and Grading | 2,463 | 2,393 | 2,393 |
| Laboratory Testing: (Number of Tests in Thousands) | | | |
| Eastern Lab: | | | |
| Poultry (Voluntary) | 14 | 14 | 15 |
| Tobacco-pesticide | 16 | 15 | 12 |
| Midwestern Lab: | | | |
| Dairy | 97 | 97 | 97 |
| Miscellaneous | 25 | 25 | 25 |
| Aflatoxin Labs | 131 | 140 | 140 |
| Citrus Lab | 12 | 13 | 13 |
| Cottonseed Lab | 28 | 27 | 27 |

3. Market Protection and Promotion:

In the administration of market protection and promotion activities the Agricultural Marketing Service operates under the following authorities:

Agricultural Marketing Act of 1946
Capper Volstead Act
Cotton Research and Promotion Act
Egg Research and Consumer Information Act
Export Apple and Pear Act
Export Grape and Plum Act
Federal Seed Act
National Wool Act of 1954
Plant Variety Protection Act
Potato Research and Promotion Act
Dairy and Tobacco Adjustment Act of 1983
Honey Research, Promotion and Consumer Information Act
Beef Promotion and Research Act of 1985
Pork Promotion, Research and Consumer Information Act of 1985
Watermelon Research and Promotion Act
Soybean Promotion, Research and Consumer Information Act of 1990
Pecan Promotion and Research Act of 1990
Mushroom Research, Promotion and Consumer Information Act of 1990
Lime Research, Promotion and Consumer Information Act of 1990
Fluid Milk Promotion Act of 1990

a. Pesticide Recordkeeping Program. This program is authorized by the Food, Agriculture, Conservation, and Trade Act of 1990 to ensure records of federally restricted use pesticides are maintained by certified pesticide applicators. This program also requires records be surveyed to provide a database on the usage of Federally restricted use of pesticides.

In FY 1993 a Memorandum of Understanding was drafted between the Agricultural Marketing Service, National Agricultural Statistics Service (NASS), and the Environmental Protection Agency to designate the responsibilities and roles of each agency pertaining to surveying records and reporting on restricted use pesticide usage. The ability to gather accurate restricted use pesticide data will be enhanced by good recordkeeping practices by certified applicators. AMS has authority to monitor compliance with the recordkeeping requirements through cooperative agreements with State pesticide regulatory agencies. AMS plans to use information obtained during NASS pesticide usage surveys to help indicate the degree of compliance with recordkeeping requirements.

Pesticide Recordkeeping Program Workload Data:

| | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|
| Number of participating states and territories | 7 | 12 | 30 |

b. Pesticide Data Program. This program is a comprehensive, multi-agency program designed to collect and analyze pesticide use and residue concentration levels in food. The Pesticide Data Program (PDP) addresses the increased public interest in pesticide issues and provides a database for government agencies to respond effectively to food safety issues. Present PDP commodities are limited to fresh fruits and vegetables.

In FY 1994, at the request of EPA, PDP will plan for redirection in the type of products sampled and analyzed. The planned program modifications are a result of the recently released National Academy of Sciences (NAS) report entitled, "Pesticides in the Diets of Infants and Children." The first new products considered for PDP sampling are sweet corn and/or peas (canned and frozen). Both are high consumption commodities for infants and children. These products may be sampled using the current sampling protocols and pesticide residue testing profile. For FY 1995, planning is underday to consider milk and grain products in PDP.

For FY 1994 and 1995, the number of samples and analyses will be relatively constant. However, to carry out the changes needed to address the NAS report, new infrastructures for sample collection and testing will be required. These plans will also require coordination with other Federal agencies and selected interest groups.

Pesticide Data Program Workload Data:

| | 1993 Actual | 1994 Estimate | 1995 Estimate |
|---|---|---|---|
| Participating States | 9 | 9 | 10a/ |
| Number of commodities | 12 | 12 b/ | 12a/ |
| Number of samples collected | 7,632 c/ | 8,460 d/ | 8,640 |
| Number of EPA pesticides in program | 34 | 42 | 45 |
| Number of Analyses | 41,000 | 41,800 | 50,000 |

a/ Wisconsin may be added for milk sampling only.

b/ Includes one or two processed commodities, e.g., canned/frozen sweet corn and/or peas.

c/ Additional organically grown samples collected in New York = 57, California Direct Public Marketing survey samples = 300. Total samples = 7,989.

d/ Additional 13 organic samples from New York, California Direct Public market survey = 900. Total estimate of samples = 9,373.

c. Federal Seed Act. This Act regulates agricultural and vegetable seed moving in interstate commerce. It prohibits false labeling and advertising of seed and the shipment of prohibited noxious-weed seed into a State. About 500 State seed inspectors are authorized to inspect seed subject to the Act. Seed samples are routinely drawn by State seed inspectors to monitor seed sold commercially. Should an inspection reveal infractions of the Act, a complaint may be referred to AMS by the cooperating State agency. Based on the results of the tests and investigations, AMS attempts to resolve each case administratively. If a case cannot be resolved administratively, AMS will initiate appropriate legal action. Intrastate infractions are subject to State laws.

Federal Seed Act Workload Data:

| | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|
| Seed Testing: | | | |
| Seed samples tested in connection with: | | | |
| Interstate shipments | 785 | 800 | 800 |
| Check tests | 335 | 400 | 400 |
| Variety testing | 1,410 | 2,000 | 2,000 |
| Total number of samples tested | 2,530 | 3,200 | 3,200 |
| Interstate Enforcement: | | | |
| Cases for Investigation: | | | |
| Total to be investigated | 1,343 | 1,200 | 1,100 |
| Investigations completed | 650 | 700 | 700 |
| Pending at end of year | 693 | 500 | 400 |
| Administrative Actions: | | | |
| No action warranted | 84 | 100 | 100 |
| Warnings issued | 397 | 500 | 500 |
| Citations issued | 104 | 150 | 150 |
| Seizures recommended | -- | -- | -- |
| Administrative Settlements: | | | |
| Settlements terminated | 147 | 175 | 175 |
| Settlements pending | 22 | 25 | 25 |

d. Plant Variety Protection Act. This program offers legal protection to developers of novel varieties of sexually reproduced plants through the issuance of a certificate. These certificates assure developers exclusive rights to sell, reproduce, import, or export such varieties, or use them in the production of hybrids of different varieties, for a period of 18 years. Fees are charged to those applying for certificates of protection and the funds are retained by the Department to fund the program.

Plant Variety Protection Workload Data:

| | 1993 Actual | 1994 Estimate | 1995 Estimate |
|---|---|---|---|
| Pending applications, beginning of year | 582 | 608 | 530 |
| New applications received | 316 | 300 | 320 |
| Certificates issued | 272 | 350 | 400 |
| Applications abandoned | 18 | 28 | 30 |
| Pending applications, end of year | 608 | 530 | 420 |
| Number of years to process pending applications | 2.1 | 1.4 | 1.0 |

e. The Research and Promotion Acts. The various Research and Promotion Acts provide for the collection of an assessment from producers to carry out research and promotion activities for beef, cotton, dairy products, eggs and egg products, honey, pecans, mushrooms, pork, potatoes, and watermelons. It is the responsibility of AMS to review and approve the budgets and projects proposed by the research and promotion boards. Each research and promotion activity reimburses AMS for the cost of overseeing these programs.

Legislation authorizing the establishment of research and promotion activities for pecans, mushrooms, limes, soybeans, and fluid milk is contained in the 1990 Food, Agriculture, Conservation and Trade Act. These programs are in various stages of implementation. The Order issuing the implementation of the soybean research and promotion program was signed by the Secretary of Agriculture on July 9, 1991, and collection of assessments began on September 1, 1991. The Department held a referendum for a processor-funded fluid milk promotion program in September 1993, and the program will be implemented in FY 1994. The Pecan Promotion and Research Plan became effective on May 1, 1992, and assessment collections began on September 1, 1992. A referendum is being conducted in the fall of 1993 to determine if pecan growers, grower-shellers, and importers favor the continuation of the pecan plan.

Mushroom producers and importers voted in a referendum in late 1992 to implement the Mushroom Promotion, Research and Consumer Information program. Assessment collections began on August 1, 1993. The Lime Research, Promotion, and Consumer Information Order became effective on January 27, 1992. However, assessment collections have not begun. The program is on hold until a technical amendment to correct the type of limes defined is made to the Lime Research, Promotion, and Consumer Information Act.

(Dollars in Millions)

| | FY 1993 Actual | | FY 1994 Estimate | | FY 1995 Estimate | |
|---|---|---|---|---|---|---|
| Programs | Assessments Collected | Funds Expended | Assessments Collected | Funds Expended | Assessments Collected | Funds Expended |
| Beef | $44.2 | $43.6 | $45.0 | $44.0 | $44.0 | $44.0 |
| Cotton | 50.9 | 47.1 | 49.8 | 48.8 | 52.3 | 51.9 |
| Dairy | 76.3 | 77.7 | 75.5 | 80.6 | 76.7 | 80.3 |
| Egg | 7.5 | 7.7 | 7.5 | 9.1 | 7.5 | 8.0 |
| Lime | -- | -- | -- | -- | 2.0 | 1.5 |
| Mushroom | -- | -- | 1.0 | 0.9 | 1.2 | 1.1 |
| Pecan | 0.9 | 0.6 | 1.5 | 1.9 | 1.4 | 1.4 |
| Honey | 3.1 | 3.6 | 2.8 | 3.9 | 2.8 | 3.9 |
| Pork | 31.1 | 39.3 | 32.9 | 40.1 | 31.7 | 40.5 |
| Potato | 7.2 | 6.4 | 6.2 | 6.3 | 6.6 | 6.6 |
| Soybean | 23.5 | 18.4 | 23.0 | 25.2 | 23.0 | 25.0 |
| Watermelon | 1.0 | 0.6 | 0.9 | 0.9 | 0.9 | 0.9 |
| Total | $245.7 | $245.0 | $246.1 | $261.7 | $250.1 | $265.1 |

4. Wholesale Market Development:

Activities in this program are carried out under the authority of the Agricultural Marketing Act of 1946.

The Wholesale Market Development Program studies and promotes market access to the small to medium sized grower through improvement of market facilities. AMS conducts applied research that apprises states, localities and market managers/operators of changes in the market and allows them, with the grower, to make strategic decisions for future product development. The program has recently expanded its concentration from wholesale markets to include auction and collection markets, retail farmers' markets, and public (urban) markets. Emphasis has also been placed on expanding markets in and near the metropolitan areas to provide more access for the small grower, more nutritious foods to the urban poor, and create jobs through development of facilities.

Other activities to improve the efficiency in the marketing and distribution of agricultural products and minimize marketing costs include: (1) designing, building, and field testing prototypes of a portable cooler that could be built and used by many small farmers, (2) providing economic/engineering assistance to farm groups for grading, packing, handling and distributing farm products, (3) publishing a bulletin that can assist tomato farmers/packers in selecting the type of box and forming machines best suited to for their needs, (4) participating with industry groups in converting to standardized pallets and boxes across the produce industry and the environmentally sound and economical disposal of unacceptable pallets, and (5) providing assistance to the 12 small farm cooperatives in the Horticultural Producers Federation.

Wholesale Market Development Workload Data:

| | 1993 Actual | 1994 Estimate | 1995 Estimate |
|---|---|---|---|
| Wholesale market facilities studies completed | 3 | 5 | 5 |
| Research projects completed | 3 | 4 | 5 |

5. Transportation Services:

The Agricultural Marketing Service carries out Transportation Services activities under the following authorities:

Agricultural Marketing Act of 1946
Agricultural Adjustment Act of 1938
Agricultural Trade and Assistance Act of 1954
Rural Development Act of 1972
International Carriage of Perishable Foodstuffs Act of 1982.

These activities are designed to assure that the transportation system will adequately serve the agricultural and rural areas of the United States and will provide the services necessary to assure the residents of these areas adequate facilities for the movement of agricultural commodities and people. The main areas of responsibility are providing technical assistance to shippers and carriers; technological research, development and, demonstrations in agricultural transport equipment; and participation in transportation regulatory actions before various Federal agencies. This program administers the International Carriage of Perishable Foodstuffs Act of 1982. In addition, Transportation Services provides economic analyses to enable the Department of Agriculture to develop policy recommendations that address current or anticipated problems in domestic and international agricultural transportation.

## JUSTIFICATION OF INCREASES AND DECREASES
## Marketing Services

(1) A net decrease of $77,000 for Market News Services consisting of:

(a) an increase of $143,000 for the anticipated January 1995 pay raise of 1.6%.

(b) an increase of $153,000 which reflects a 2.6% increase in non-salary costs.

(c) a decrease of $190,000 for a reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, AMS will eliminate 6 staff years (4%) by the end of FY 1995. In addition, AMS will be working with the other Marketing and Inspection Service Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(d) a decrease of $183,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in the Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. FSIS will be responsible for increasing the efficiency of providing the personnel functions. And, APHIS will be responsible for increasing the efficiency of providing the administrative functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(2) A net increase of $309,000 for Standardization and Inspection Services consisting of:

(a) an increase of $351,000 to fulfill new legislative requirements of the Egg Products Inspection Act.

Need for Change. Amendments to the Egg Products Inspection Act, enacted on December 13, 1991, state that eggs must be held at 45 degrees Fahrenheit ambient temperature after packing and that egg cartons and cases must be labeled to indicate that refrigeration is required. Consequently, AMS is responsible for verifying that registered shell egg packing plants are complying with these legislative requirements. Inspectors must perform temperature checks using specialized equipment. This additional task required of shell egg inspectors prolongs the time spent on inspection, and therefore increases the cost.

Nature of Change. The additional funding will be used to offset increased reimbursements to the States and to purchase temperature testing equipment. State and Federal inspectors will make a minimum of 4 temperature checks annually at each of the 1,116 registered packing plants and in thousands of transport vehicles. Since State personnel are responsible for shell egg inspections in most States, reimbursements to the States will be increased to finance the expanded workload. In Michigan, Missouri, Tennessee, Texas, and Puerto Rico, where shell egg inspections are performed by Federal employees, currently employed personnel will incur additional time and expenses in performing temperature checks. Necessary equipment will be purchased for both Federal and State personnel to maximize the accuracy and efficiency of the temperature checks.

(b) an increase of $134,000 for the anticipated January 1995 pay raise of 1.6%.

(c) an increase of $123,000 which reflects a 2.6% increase in non-salary costs.

(d) a decrease of $156,000 for a reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, AMS will eliminate 5 staff years (4%) by the end of FY 1995. In addition, AMS will be working with the other Marketing and Inspection Service Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(e) a decrease of $143,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in the Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. FSIS will be responsible for increasing the efficiency of providing the personnel functions. And, APHIS will be responsible for increasing the efficiency of providing the administrative functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(3) A net increase of $883,000 for Market Protection and Promotion consisting of:

(a) an increase of $1,200,000 to establish a Center of Excellence at Prairie View University.

Need for change. The Secretary of Agriculture announced the 1890 Initiative - Centers of Excellence - on April 15, 1992. The goal of this initiative is to establish partnership arrangements between 1890 land grant institutions and USDA agencies. AMS proposes to develop a Center of Excellence for World Food Distribution Training at Prairie View University in conjunction with the ERS (Economic Research Service), FNS (Food and Nutrition Service), FAS (Foreign Agricultural Service), and OICD (Office of International Cooperation and Development).

In a rapidly changing world agricultural marketplace, there is a need for well-trained and knowledgeable staff to work in the distribution, transportation, and trade of food and fiber products. Currently, a small number of minorities work in the domestic and international transportation and distribution industry. A World Food Distribution Training Center (WFDTC) will provide minority students with a strong educational foundation to pursue a career in domestic and international marketing and trade.

Nature of change. This proposal would fund the establishment of a Center of Excellence for World Food Distribution Training at Prairie View University. AMS would serve as the lead agency in providing support to the WFDTC, and would administer funds to ERS, FNS, FAS and OICD through cooperative agreements.

(b) an increase of $34,000 for the anticipated January 1995 pay raise of 1.6%.

(c) an increase of $325,000 which reflects a 2.6% increase in non-salary costs.

(d) a decrease of $285,000 for a reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, AMS will eliminate 9 staff years (4%) by the end of FY 1995. In addition, AMS will be working with the other Marketing and Inspection Service Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(e) a decrease of $391,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in the Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. FSIS will be responsible for increasing the efficiency of providing the personnel functions. And, APHIS will be responsible for increasing the efficiency of providing the administrative functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(4) A net decrease of $20,000 for Wholesale Market Development consisting of:

(a) an increase of $15,000 for the anticipated January 1995 pay raise of 1.6%.

(b) an increase of $25,000 which reflects a 2.6% increase in non-salary costs.

(c) a decrease of $31,000 for a reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, AMS will eliminate 1 staff year (4%) by the end of FY 1995. In addition, AMS will be working with the other Marketing and Inspection Service Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(d) a decrease of $29,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in the Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. FSIS will be responsible for increasing the efficiency of providing the personnel functions. And, APHIS will be responsible for increasing the efficiency of providing the administrative functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

(5) A net decrease of $10,000 for Transportation Services consisting of:

(a) an increase of $23,000 for the anticipated January 1995 pay raise of 1.6%.

(b) an increase of $12,000 which reflects a 2.6% increase in non-salary costs.

(c) a decrease of $31,000 for a reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, AMS will eliminate 1 staff year (4%) by the end of FY 1995. In addition, AMS will be working with the other Marketing and Inspection Service Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(d) a decrease of $14,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in the Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. FSIS will be responsible for increasing the efficiency of providing the personnel functions. And, APHIS will be responsible for increasing the efficiency of providing the administrative functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

Agricultural Marketing Service
Summary of Proposed Legislation

SUMMARY OF INCREASES AND DECREASES - PROPOSED LEGISLATION

| | 1995 | | |
|---|---|---|---|
| | Current Law | Program Changes | President's Request |
| Inspection & Standardization ... | $17,761,000 | -$6,148,000 | $11,613,000 |
| All Other ..... | 40,780,000 | -- | 40,780,000 |
| Total Available ..... | 58,541,000 | -6,148,000 | 52,393,000 |

Explanation of Proposed Legislation:

AMS develops, reviews, and maintains agricultural commodity standards that describe quality attributes such as taste, color, texture, yield, weight and physical condition. Standards facilitate trade by providing a common language for use by producers, sellers, and consumers of agricultural commodities. AMS quality standards also ensure uniformity in grading and certification of commodities, and provide a means of measuring value to establish price. Funding was appropriated for the standardization program in the fiscal year 1994 budget, but a requirement was added that required user fees to be assessed and deposited to the Treasury's general fund. AMS began charging fees for standardization activities to customers of AMS grading services.

AMS proposes to retain the funds collected from user fees, and that appropriated funding for standardization activities be eliminated. Since the beneficiaries are now paying for the cost of standardization services, it is inappropriate to continue to reflect the activity as funded from tax dollars. Furthermore, both administrative and tax benefits would result from the change in funding. Budget authority, which requires supporting tax assessments, would be reduced. Retention of user fees by AMS would eliminate the need to transfer assessments to Treasury, which complicates program administration and curtails AMS' flexibility in setting fees. This proposal would simplify program administration.

Under the Egg Products Inspection Act, the cost of egg products inspection is funded by appropriations, except for the cost of overtime and holiday work performed in official plants. AMS charges fees for overtime and holiday inspection services. Therefore, facilities which operate beyond regularly scheduled shifts pay overtime costs for inspection, but establishments which regularly operate a second shift have been provided inspection without reimbursing AMS. It is inequitable to require those plants without enough production to warrant an additional complete shift to pay fees while plants with more than one regularly scheduled shift are not assessed fees. We propose that user fees be charged to recover one hundred percent of the cost of providing egg products inspection for any inspection other than during the primary shift. User fees charged for second shift egg product inspections would equalize treatment between egg products processors that operate more than one shift and those that require overtime.

These proposals to recover program costs through user fees are expected to generate a reduction in appropriated funding totalling $6,148,000. This reduction includes $1,726,000 for the Egg Products Inspection program and $4,422,000 for the Standardization program.

Agricultural Marketing Service
Marketing Services
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 and Estimated 1994 and 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Alabama | $293,321 | 6 | $307,000 | 6 | $313,000 | 6 |
| Alaska | 8,855 | | 9,000 | | 9,000 | |
| Arizona | 275,752 | 6 | 282,000 | 6 | 281,000 | 6 |
| Arkansas | 433,869 | 8 | 457,000 | 8 | 467,000 | 8 |
| California | 4,769,618 | 45 | 4,874,000 | 46 | 4,910,000 | 45 |
| Colorado | 335,276 | 6 | 343,000 | 6 | 343,000 | 6 |
| District of Columbia. | 23,855,710 | 258 | 25,083,000 | 274 | 25,950,000 | 259 |
| Florida | 1,854,157 | 10 | 1,871,000 | 10 | 1,875,000 | 10 |
| Georgia | 940,924 | 19 | 975,000 | 20 | 983,000 | 20 |
| Hawaii | 14,477 | | 15,000 | | 15,000 | |
| Idaho | 101,564 | 2 | 104,000 | 2 | 104,000 | 2 |
| Illinois | 900,798 | 15 | 914,000 | 15 | 911,000 | 15 |
| Indiana | 462,757 | 8 | 491,000 | 8 | 504,000 | 8 |
| Iowa | 3,156,062 | 60 | 3,297,000 | 62 | 3,345,000 | 61 |
| Kansas | 275,805 | 6 | 281,000 | 6 | 280,000 | 6 |
| Kentucky | 177,274 | 4 | 181,000 | 4 | 180,000 | 4 |
| Louisiana | 173,372 | 4 | 178,000 | 4 | 177,000 | 4 |
| Maine | 126,477 | 3 | 132,000 | 3 | 134,000 | 3 |
| Maryland | 116,901 | 2 | 119,000 | 2 | 118,000 | 2 |
| Massachusetts | 190,421 | 4 | 194,000 | 4 | 193,000 | 4 |
| Michigan | 1,184,449 | 4 | 1,188,000 | 4 | 1,187,000 | 4 |
| Minnesota | 1,231,014 | 22 | 1,295,000 | 24 | 1,321,000 | 24 |
| Mississippi | 844,158 | 5 | 858,000 | 6 | 863,000 | 6 |
| Missouri | 769,416 | 16 | 804,000 | 16 | 810,000 | 16 |
| Montana | 87,006 | 2 | 89,000 | 2 | 89,000 | 2 |
| Nebraska | 393,759 | 9 | 401,000 | 9 | 399,000 | 9 |
| New Jersey | 987,608 | 19 | 1,033,000 | 20 | 1,050,000 | 20 |
| New York | 2,531,469 | 17 | 2,555,000 | 17 | 2,557,000 | 17 |
| North Carolina | 1,391,420 | 24 | 1,461,000 | 25 | 1,489,000 | 25 |
| Ohio | 484,315 | 7 | 500,000 | 7 | 505,000 | 7 |
| Oklahoma | 211,753 | 4 | 216,000 | 4 | 215,000 | 4 |
| Oregon | 253,407 | 6 | 263,000 | 6 | 265,000 | 6 |
| Pennsylvania | 690,825 | 14 | 716,000 | 14 | 722,000 | 14 |
| Puerto Rico | 71,796 | 1 | 76,000 | 1 | 78,000 | 1 |
| South Carolina | 810,039 | 14 | 793,000 | 15 | 793,000 | 15 |
| South Dakota | 175,672 | 4 | 179,000 | 4 | 178,000 | 4 |
| Tennessee | 1,269,747 | 27 | 1,270,000 | 27 | 1,264,000 | 26 |
| Texas | 2,113,586 | 18 | 2,136,000 | 18 | 2,137,000 | 17 |
| Utah | 73,107 | 1 | 77,000 | 1 | 79,000 | 1 |
| Virginia | 22,749 | | 24,000 | | 25,000 | |
| Washington | 1,078,413 | 13 | 1,106,000 | 13 | 1,115,000 | 13 |
| West Virginia | 50,734 | 1 | 52,000 | 1 | 52,000 | 1 |
| Wisconsin | 137,268 | 3 | 149,000 | 3 | 148,000 | 3 |
| Wyoming | 106,010 | 2 | 108,000 | 2 | 108,000 | 2 |
| Subtotal, Available or Estimate | 55,433,110 | 699 | 57,456,000 | 725 | 58,541,000 | 706 |
| Unobligated balance | 705,890 | -- | -- | -- | -- | -- |
| Total, Available or Estimate | $56,139,000 | 699 | $57,456,000 | 725 | 58,541,000 | 706 |

## AGRICULTURAL MARKETING SERVICE

The estimates include appropriation language for this item as follows (new language underscored: deleted matter enclosed in brackets):

Payments to States and Possessions:

> For payments to departments of agriculture, bureaus and departments of markets, and similar agencies for marketing activities under section 204(b) of the Agricultural Marketing Act of 1946 (7 U.S.C. 1623(b)), [$1,735,000] $1,250,000.

## PAYMENTS TO STATES AND POSSESSIONS

| | | |
|---|---|---|
| Appropriations Act, 1994 | | $1,735,000 |
| Budget Request, 1995 | | 1,250,000 |
| Decrease in Appropriation | | -485,000 |
| Adjustments in 1994: | | |
| Appropriations Act, 1994 | $1,735,000 | |
| Activities transferred per Secretary's Reorganization Authority a/ | -435,000 | |
| Adjusted base for 1994 | | 1,300,000 |
| Budget Request, 1995 | | 1,250,000 |
| Decrease from adjusted 1994 | | -50,000 |

a/ Reflects the FY 1994 transfer of $435,000 to Agricultural Cooperative Service pursuant to the Secretary's Reorganization Authority.

## PROJECT STATEMENT
(On basis of appropriation)

| | 1993 Actual | 1994 Estimated | Decrease | 1995 Estimated |
|---|---|---|---|---|
| Payments for marketing service work under Section 204(b) of the Agricultural Marketing Act of 1946 | $1,233,042 | $1,300,000 | -$50,000 | $1,250,000 |
| Unobligated balance | 16,958 | -- | -- | -- |
| Total, available or estimate | 1,250,000 | 1,300,000 | -50,000 (1) | 1,250,000 |
| Transfer to the Agricultural Cooperative Service | -- | +435,000 | -435,000 | -- |
| Total appropriation | 1,250,000 | 1,735,000 | -485,000 | 1,250,000 |

## EXPLANATION OF PROGRAM

The Federal-State Marketing Improvement Program is authorized by Section 204(b) of the Agricultural Marketing Act of 1946. This legislation also grants the U.S. Department of Agriculture authority to establish cooperative agreements with State Departments of Agriculture or similar State agencies. These agreements make possible joint efforts to improve the efficiency of the agricultural marketing chain. The States perform the work or contract it to others, and must contribute at least half of the cost of the projects. Payments are made to State marketing agencies to: identify and market test alternative farm commodities; determine methods of providing more reliable market information, and develop better commodity grading standards. This program has covered many types of projects, such as electronic marketing and agricultural product diversification. The general themes of the current projects include the improvement of marketing efficiency and effectiveness, and seeking new outlets for existing farm produced commodities.

JUSTIFICATION OF INCREASES AND DECREASES
Payments to States and Possessions

(1) A decrease of $50,000 for program activities.

Need for Change. The Federal-State marketing improvement program provides matching funds to State Departments of Agriculture for projects directed toward improving the marketing of farm products within local marketing systems. This program assists the States to fund projects at the regional and local level. AMS proposes a reduction in Federal matching funds. Decreased funding will allow the agency to continue to provide assistance for the most urgent local marketing projects.

Nature of Change. AMS will continue to provide Federal matching funds to assist the States in funding projects designed to resolve State or local marketing problems.

Agricultural Marketing Service
Payments to States and Possessions
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS
1993 and Estimated 1994 and 1995

| | 1993 |
|---|---|
| Alabama | $82,566 |
| Arizona | 50,000 |
| Arkansas | 94,572 |
| California | 40,000 |
| Colorado | 34,700 |
| Connecticut | 80,000 |
| Delaware | 14,000 |
| Florida | 82,000 |
| Georgia | 50,000 |
| Idaho | 46,000 |
| Indiana | 39,903 |
| Maine | 9,000 |
| Massachusetts | 25,500 |
| Minnesota | 44,475 |
| Mississippi | 35,000 |
| Nebraska | 29,615 |
| New Mexico | 16,000 |
| New York | 11,673 |
| Oklahoma | 50,000 |
| South Dakota | 40,000 |
| Texas | 145,000 |
| Virgin Islands | 60,000 |
| Virginia | 73,038 |
| Utah | 80,000 |
| Subtotal, Available or Estimate | 1,233,042 |
| Unobligated Balance | 16,958 |
| Total, Available or Estimate a/ | $1,250,000 |

a/ Distribution of obligations by State not available until projects have been selected. Funding in 1994 is $1,300,000 and 1995 $1,250,000.

## PERISHABLE AGRICULTURAL COMMODITIES ACT FUND

| | |
|---|---|
| Appropriations Act, 1994 (from receipts) | $7,820,000 |
| Budget Estimate, 1995 (from receipts) | 7,881,000 |
| Increase in Appropriation | +61,000 |

### SUMMARY OF INCREASES AND DECREASES
(On basis of appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Program Changes | 1995 Estimated |
|---|---|---|---|---|
| Licensing dealers and handling complaints .... | $7,820,000 | +$61,000 | -- | $7,881,000 |

### PROJECT STATEMENT
(On basis of appropriation)

| Project | 1993 Actual Amount | 1993 Actual Staff-Years | 1994 Estimated Amount | 1994 Estimated Staff-Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff-Years |
|---|---|---|---|---|---|---|---|
| Licensing dealers and handling complaints ..... | $6,920,636 | 125 | $7,820,000 | 127 | +$61,000 | $7,881,000 | 127 |
| Unobligated balance available: start of period . | -1,233,171 | -- | -1,690,789 | -- | -- | -1,690,789 | -- |
| Unobligated balance available: end of period ... | 1,690,789 | -- | 1,690,789 | -- | -- | 1,690,789 | -- |
| Total available or estimate ..... | 7,378,254 | 125 | 7,820,000 | 127 | (1) +61,000 | 7,881,000 | 127 |

### OBLIGATION LEVELS
(on basis of appropriation)

| Item | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| Appropriation (from receipts) ..... | $7,378,254 | $7,820,000 | $7,881,000 |
| Unobligated balance available, start of period ..... | 1,233,171 | 1,690,789 | 1,690,789 |
| Total available ..... | 8,611,425 | 9,510,789 | 9,571,789 |
| Total obligations ..... | -6,920,636 | -7,820,000 | -7,881,000 |
| Unobligated balance available, end of period ..... | 1,690,789 | 1,690,789 | 1,690,789 |

## EXPLANATION OF PROGRAM

## PERISHABLE AGRICULTURAL COMMODITIES ACT

This program is carried out under the Perishable Agricultural Commodities Act and the Produce Agency Act.

These Acts are designed to: (1) protect producers, shippers, distributors and retailers from loss due to unfair and fraudulent practices in the marketing of perishable agricultural commodities; and (2) prevent the unwarranted destruction or dumping of farm products handled for others.

Commission merchants, dealers, and brokers handling fresh and frozen fruits and vegetables in interstate and foreign commerce require a PACA license. Buyers and sellers must fulfill contractual obligations, and abide by the fair trading practices established by the PACA.

Traders who have been found to have committed unfair trade practices face license suspension or revocation. The principles of a violator also face license and employment restrictions. When eligible to resume trading, they may be required to post surety bonds before resuming operations. False or misleading statements, misbranding, and similar violations are prohibited.

To increase protection and avert financial losses to growers and licensed firms, the Perishable Agricultural Commodities Act was amended in 1984 to create a statutory trust. The trust provision requires traders to maintain sufficient assets on hand to meet their obligations to produce suppliers. Sellers of fruits and vegetables who have not been paid are secured under this legislation until full payment is made. Sellers who have preserved their trust rights are first in line to be paid from produce related assets.

Complaints of violations are investigated and resolved through: (1) informal agreements between the two parties; (2) formal decisions involving payments to injured parties; or (3) suspension or revocation of license and/or publication of the facts. Any interested party or group may request AMS assistance in settling disputes under the Perishable Agricultural Commodities Act.

License fees are deposited into a special fund and used to meet the costs of administering these Acts. The annual PACA license fee is $400, plus $200 for every branch or business facility above nine, up to a maximum annual fee of $4,000.

Perishable Agricultural Commodities Act Workload Data:

| Licensing Activities: | 1993 Actual | 1994 Estimate | 1995 Estimate |
|---|---|---|---|
| Licenses renewed | 13,096 | 13,039 | 12,982 |
| New licenses issued | 1,856 | 1,870 | 1,870 |
| In effect, end of year | 14,952 | 14,909 | 14,852 |

| | 1993 Actual | 1994 Estimate | 1995 Estimate |
|---|---|---|---|
| Actions Completed: * | | | |
| License actions | 23,100 | 23,200 | 23,200 |
| Reparation actions | 46,000 | 47,000 | 48,000 |
| Disciplinary actions | 72 | 75 | 75 |
| Personal investigations | I,674 | 2,000 | 2,I75 |
| Misbranding actions | 524 | 540 | 565 |
| Total Actions | 71,370 | 72,815 | 74,015 |
| Reparations: (Dollars in Millions) | | | |
| Awarded - Formal orders | 16,609 | $17,000 | $17,500 |
| Payments - Amicable settlements | 24,532 | 25,560 | 30,500 |
| Total Reparations | 41,I41 | 42,560 | 48,000 |
| Statutory Trust: | | | |
| Notices filed | I32,464 | I45,000 | I55,000 |
| Refunds to sellers (Dollars in Millions) | 735 | 800 | 850 |

* Statutory Trust Notices included in Actions Completed.

JUSTIFICATION OF INCREASES AND DECREASES
Perishable Agricultural Commodities Act

(1) A net increase of $61,000 for the anticipated January I995 pay raise of 1.6%.

Perishable Agricultural Commodities Act
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 and Estimated I994 and 1995

| | 1993 | | I994 | | I995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Arizona | $775,748 | 17 | $877,000 | I7 | $883,000 | I7 |
| District of Columbia. | 3,516,527 | 53 | 3,974,000 | 53 | 4,005,000 | 53 |
| Illinois | 579,167 | 12 | 654,000 | 13 | 660,000 | 13 |
| New Jersey | 667,648 | I4 | 754,000 | 14 | 760,000 | 14 |
| Texas | 7I4,840 | 15 | 808,000 | 16 | 814,000 | 16 |
| Virginia | 666,706 | 14 | 753,000 | 14 | 759,000 | 14 |
| Total, Available or Estimate | $6,920,636 | 125 | $7,820,000 | 127 | $7,881,000 | 127 |

## AGRICULTURAL MARKETING SERVICE

The estimates include proposed changes in the language of this item as follows (new language underscored; deleted matter enclosed in brackets):

Limitation on Administrative Expenses

Not to exceed [$55,953,000] $57,054,000 (from fees collected) shall be obligated during the current fiscal year for administrative expenses: Provided, That if crop size is understated and/or other uncontrollable events occur, the Agency may exceed this limitation by up to 10 percent with notification to the Appropriations Committees.

Limitation on Administrative Expenses

| | |
|---|---|
| Appropriation Act, 1994 | $55,953,000 |
| Budget Estimate, 1995 | 57,054,000 |
| Change in Limitation | +1,101,000 |

The increase of $1,101,000 in the limitation on administrative expenses is needed to fund increased operating costs in FY 1995. The increased limitation will allow for uninterrupted grading services in FY 1995.

## PASSENGER MOTOR VEHICLES

The 1995 Budget Estimates propose the purchase of 31 replacements and six additional motor vehicles.

The estimated number of passenger motor vehicles available for 1995 are the minimum necessary to maintain essential services in AMS programs. These cars are used to provide the following necessary services: (1) traveling to places which in most cases are not accessible by common carriers, such as farms, market terminals, offices of product dealers and truckers, processing plants, canneries, stockyards, cotton gins, and compress operators; (2) carrying special grading and testing equipment used for inspecting and grading commodities and for performing other work required under the Agricultural Marketing Act of 1946; U.S. Cotton Standards Act; Cotton Statistics and Estimates Act; Tobacco Inspection Act; and Dairy and Tobacco Adjustment Act; and (3) carrying boxes of cotton standards types used in classing work and demonstration at farmers' meetings.

Additional passenger motor vehicles. Six additional passenger motor vehicles are requested for use in the tobacco division. Increases in the workload of the imported tobacco grading program will require additional vehicles for transporting inspectors from regional offices to the ports of entry.

Replacement of passenger motor vehicles. Replacement of 31 of the 63 vehicles now in operation is proposed. All vehicles proposed to be replaced are expected to have mileage over 60,000 or will be more than six years of age.

The age and mileage data for passenger motor vehicles on hand as of September 30, 1993 are as follows:

| | Age Data | | | Mileage Data | |
|---|---|---|---|---|---|
| Age-Year Model | Number of Vehicles | Percent of Total | Lifetime Mileage (thousands) | Number of Vehicles | Percentage of Total |
| 1988 or older | 35 | 56 | 80 or over | 24 | 38 |
| 1989 | 6 | 10 | 60-80 | 11 | 17 |
| 1990 | 7 | 11 | 40-60 | 12 | 19 |
| 1991 | 4 | 5 | 20-40 | 8 | 13 |
| 1992 | 5 | 8 | Under 20 | 8 | 13 |
| 1993 | 6 | 10 | | | |
| | | | Total | 63 | 100 |
| Total | 63 | 100 | | | |

# MARKETING SERVICES

## STATUS OF PROGRAM

## MARKET NEWS

Current Activities:

The Market News Service provides current, unbiased information on supplies, demand, prices, movement, location, quality, condition, and other market data on farm products in specific markets and marketing areas. This information is supplied to producers, processors, distributors, and others to assist them in the orderly marketing and distribution of farm commodities.

Selected Examples of Recent Progress:

1. Market News Information System:

   In FY 1993, implementation and enhancements of the market news database system continued with integration of field office databases with headquarters' databases for all commodities. Installation of the final enhancements of the Feeder Cattle Weighted Average program for lap-top reporting of price and weight data was completed. The Chicago Mercantile Exchange (CME) is utilizing this data to establish settlement prices for Feeder Cattle Future Contracts. Also, the new Value Based Hog Market Reports program was completed with transfer capabilities to the field office and headquarters database system.

2. International Cooperation and Reporting:

   AMS implemented several marketing information exchange projects in 1993. Daily and weekly beef, lamb, pork, and wool market data from Japan, New Zealand, Australia, Denmark, and Taiwan are now included in international reports.

   AMS has been actively assisting Poland, Mexico, Japan, Canada, Bulgaria, Ukraine, Kazakhstan, and Venezuela, to develop market news systems by providing training to improve the exchange of international market news and enhance international agricultural trade.

   AMS also initiated a biweekly report on the international markets for selected dairy products. The regions covered in this report are Western Europe, Eastern Europe, and Oceania. AMS began reporting wholesale price information for fruits and vegetables in Germany and the Netherlands. We expect to add France and Poland to this report in FY 1994.

3. New Marketing Reports:

   In 1993, AMS began releasing the daily Eastern Cornbelt Lean-Value Hog report from Springfield, Illinois and the daily Western Cornbelt Lean-Value Hog report from Des Moines, Iowa. These reports followed the earlier release of the Mid-South Lean-Value Hog report from Thomasville, Georgia. Both packers and producers requested reports that depict prices determined by percent of lean and carcass weight. The release in July of the Western Cornbelt report culminated in cooperative effort for the past two years by all facets of the U.S. swine industry. The effort included producers, national organizations such as the National Pork Producers, packers and their national organization the American Meat Institute, and AMS. Producers who receive carcass data on their hogs can now compare their information with our report to evaluate marketing alternatives.

   At the request of the U.S. livestock and meat industry, AMS began reporting Closely Trimmed Fabricated Boxed Beef Cuts in August of 1993. The increasing

amount of product sold ir this manner precipitated the need for reports reflecting these product. Closely trimmed products generally have half as much fat covering on the ed cuts as regular boxed beef cuts. Similarly, AMS began quoting 1/8" trim po: loins 14-18 pounds, in both select and commodity loins. Sales of standardized trimmed products have been slow to develop. However, with the cooperation of packers, processors, and retailers, we have developed reports which reflect daily trading of these commodities.

## INSPECTION, GRADING AND STANDARDIZATION

Current Activities:

AMS administers an egg products inspection program which ensures that all egg products are wholesome, unadulterated, and truthfully labeled. AMS provides continuous in-plant inspection of plants manufacturing egg products, a shell egg surveillance program, and an imported egg products inspection program.

The commodity grading and standardization programs assist in the marketing of agricultural products by establishing and applying standards which reflect relative quality characteristics for a particular commodity, such as taste, color, weight, yield, and physical condition. Quality standards are used to grade livestock, meat, wool, poultry and eggs, dairy products, cotton, tobacco, and fruits and vegetables. Certification and acceptance services are available to users interested in ensuring that commodity purchases conform to contract specifications. Grading, certification, and acceptance services are provided on a fee-for-service basis. Grading and certification fees also support the development and maintenance of quality standards.

Selected Examples of Recent Progress:

1. Egg Products Inspection:

In FY 1993, AMS provided continuous in-plant inspection to 81 egg products processing plants. Under the import inspection program, approximately 2.6 million pounds of egg products from Canada were approved for importation, more than double the 1.2 million pounds approved in FY 1992.

The shell egg surveillance program monitors the disposition of "restricted eggs" (eggs that are cracked, dirty, incubator rejects, inedible, leaking, or otherwise unfit for human consumption) to ensure that only eggs fit for human consumption are available to consumers. Inedible eggs constitute a small proportion of all eggs and most inedible shell eggs and egg products are used in animal feed. The remainder are destroyed. During FY 1993, the volume of inedible shell eggs and egg products amounted to approximately 6.7 percent of liquid egg production. As a result of plant consolidations and closings, the number of shell egg handlers and hatcheries inspected at least quarterly in FY 1993 decreased to 978 shell egg handlers and 453 hatcheries.

AMS tests egg products for various industrial and environmental chemicals under residue monitoring and surveillance programs. During FY 1993, 426 samples were analyzed for a variety of chlorinated hydrocarbons. In October 1992, a violative level of chlordane was detected in a routine residue monitoring sample of frozen whole eggs produced in a Puerto Rico processing plant during September. Follow-up by our supervisory staff revealed that all product represented by the sample in distribution channels had been used. The shell eggs used were from five local distributors who buy eggs from several layer operations. Since the amount of chlordane detected exceeded the established recommended action level (0.10 parts per million), all frozen product inventory produced since May 1992, the date of the previous residue sample analysis, was retained pending results of an analysis by individual production lot. Each lot of product produced subsequent to our becoming aware of the violation was also

sampled for analysis. Analysis of samples from several lots of frozen product produced from May through December 1992 showed detectable levels of chlordane. One layer flock was identified through our intensified sampling and was destroyed. Those lots determined to contain chlordane in excess of the established recommended action level were retained for destruction.

The results of our analysis were shared with the Food Safety and Inspection Service (FSIS) Contamination Response System (CRS) committee. FSIS issued a letter to each identified producer requiring a preslaughter sample of hens from each flock. Additionally, FSIS initiated random sampling of fowl in slaughter plants in Puerto Rico. This procedure identified the contaminated layer flocks, which were owned by one producer. These flocks were subsequently destroyed. Information regarding the residue case was also provided to the Food and Drug Administration (FDA) and Puerto Rican officials.

All lots of frozen product identified as containing violative levels of chlordane were destroyed (buried) under USDA supervision. Results of routine monitoring samples submitted since the case was closed in January 1993 show no residues of chlordane.

In addition, 759 samples were analyzed for Listeria species under the mandatory and voluntary egg products programs. These analyses were used in two studies to determine the shelf life in pasteurized egg products and the presence of Listeria in unpasteurized egg products. A total of 433 samples were analyzed for this special project. From this total, 58 samples were found positive for Listeria monocytogenes, 151 samples positive for Listeria innocua, 14 samples for Listeria welshneri, 2 samples for Listeria ivanovii, 6 samples for Listeria murrayi and 202 samples negative. The shelf life studies showed 2 positives for Listeria monocytogenes out of the 326 samples analyzed.

The problem of Salmonella enteritidis (Se) in shell eggs continued as a serious human health issue during FY 1993. The mechanism for the transmission of the organism into the egg is believed to be transovarian but there is limited scientific information available on the subject. A task force of USDA and FDA officials continue to work on this issue. Where requested, and with the flock owners' concurrence, AMS is cooperating with APHIS and State agencies to control the movement of eggs from infected flocks, once identified, to processing establishments for pasteurization rather than to fresh egg markets. Under authority of the Egg Products Inspection Act, USDA assures these shell eggs are processed into egg products and pasteurized to destroy viable Salmonella organisms. The FDA has issued a model code interpretation for handling eggs in retail establishments. In 1991, the EPIA was amended to require refrigeration of eggs immediately after packaging. The refrigeration requirement applies during storage and transportation. Currently, promulgation of implementing regulations is being delayed because the specific 45 degrees Fahrenheit refrigeration requirement is not routinely attainable in transportation vehicles. Accordingly, the industry is seeking a change in the wording of the amended statute.

In FY 1993, the Recognized Laboratory Program certified 54 laboratories for Salmonella testing in egg products. The program recognizes laboratories which pass an on-site audit of their Salmonella methodology, quality control, and recordkeeping systems. In addition, each laboratory has to demonstrate testing proficiency by correctly analyzing a set of initial qualification samples. Follow-up check and split sample programs were utilized to determine each laboratory's continued proficiency.

Fees and Charges in Effect:

| Service Performed | FY 1993 Hourly Fees |
|---|---|
| Overtime Inspection | $22.72 |

| | |
|---|---|
| Holiday Inspection | $16.04 |

2. Grading and Standardization:

a. Cotton Classing:

AMS classified 15.8 million samples of cotton under the grower classing program in FY 1993, with all Upland cotton classed by the High Volume Instrument (HVI) method. In addition, classification of 238,000 samples was provided under the Cotton Futures and Cotton Standards Acts. AMS began grading cotton under a new classification system, in which cotton is described in terms of its color grade and its leaf grade, as opposed to the old system in which the grade consisted of a composite of these two quality factors. Classification data was provided via telecommunications to most growers or their agents.

Subsequent owners of cotton, primarily merchants and manufacturers, increased their use of the central database to obtain classing data. ASCS also began accessing this system to obtain quality information for loan purposes.

Producers of 2.3 million bales participated in the module/trailer averaging program which increased the accuracy and repeatability of HVI measurements.

Fees and Charges in Effect:

| Service Performed | FY 1993 Fees a/ |
|---|---|
| Cotton Grading | $1.87 per sample for HVI classing |

a/ This is the net fee collected, there is a five cent per sample discount if producers are billed through voluntary central agents (e.g., cotton gins and warehouses).

b. Tobacco Grading:

Approximately 98 percent (1.6 billion pounds) of all tobacco domestically produced in FY 1993 was graded by Federal tobacco inspectors and sold at auction markets. In addition, AMS reinspected about 266 million pounds of tobacco pledged as collateral by growers under the Commodity Credit Corporation loan program.

The Dairy and Tobacco Adjustment Act of 1983 requires that all tobacco (except cigar and oriental types) imported into the United States be inspected to ascertain the type and quality of imported tobacco. The imported tobacco inspection program was initiated in 1984. In 1992 it was converted to the metric system. During FY 1993, AMS inspected approximately 271 million kilograms of imported tobacco. The imported tobacco pesticide testing and certification program, initiated in 1986, required that all flue-cured and burley tobacco offered for importation into the United States be free of prohibited pesticides. A total of 266 million kilograms of imported flue-cured and burley tobacco was tested for pesticides during FY 1993.

Fees and Charges in Effect:

| Service Performed | | FY 1993 Fees |
|---|---|---|
| Permissive Inspection | Regular time | $32.40 per hour |
| | Overtime | $38.70 per hour |
| | Sundays and Holidays | $48.45 per hour |

| | |
|---|---|
| Domestic Tobacco Grading | $.70 per hundred pounds |
| Imported Tobacco Grading * | $.99 per hundred kilograms |
| Imported Tobacco Pesticide Testing and Certification: | |
| A. Self-Certification (If importer certifies that tobacco is within pesticide residue tolerance) | $.77 per hundred kilograms |
| B. Non-Certification (If if importer does not certify that the tobacco is within pesticide residue tolerance) | $1.54 per hundred kilograms |
| Permissive Certification of Export Tobacco | $.25 per hundred pounds |

* The 1993 Omnibus Budget Reconciliation Act requires that the Secretary make the Imported Tobacco Fee comparable to the Domestic Tobacco Fee. A proposal to implement this provision is under review by the Department.

c. Poultry and Egg Grading:

Approximately 94 percent of poultry grading services are provided on a resident basis. In most of these instances, a full-time grader is stationed at the plant requesting service. The remaining 6 percent of poultry grading services are provided on a non-resident (lot grading) basis. During FY 1993, resident service was provided in 169 poultry plants and 165 shell egg plants. A total of 16 billion pounds of poultry and 1.4 billion dozen shell eggs were graded during the year. This represents 73 percent of the turkeys slaughtered, 55 percent of the broilers slaughtered, and 37 percent of the shell eggs produced in the U.S., excluding eggs used for breaking and hatching.

Fees and Charges in Effect:

| Service Performed | FY 1993 Hourly Fees |
|---|---|
| Non-Resident Plant Voluntary Grading: | |
| Regular Time | $30.12 |
| Saturday, Sunday, Holiday | $30.52 |
| Resident Plant | $23.24-$32.26 * |

* Depending on the volume of product handled in the plant.

d. Meat Grading and Certification:

During FY 1993, meat grading and certification services were provided to approximately 350 meat packing, processing, and other food establishments nationwide. A total of 18 billion pounds of red meat (beef, lamb, veal, and calf) was graded during the year. This figure represents 95.2 percent of the steers and heifers, 90.1 percent of the lamb, and 18.4 percent of the calves commercially slaughtered in the U.S. This is a 400 million pound increase in meat graded over FY 1992, and results primarily from the increasing consumer acceptance of beef from the Select grade and emphasis on yield grading by industry to control their inventory.

Fees and Charges in Effect:

| Service Performed | FY 1993 Hourly Fees |
|---|---|

| | |
|---|---|
| Commitment Grading | $35.20 |
| Non-commitment Grading | $37.60 |
| Overtime Grading | $43.20 |
| Holiday Grading | $70.40 |

e. Livestock Grading:

In FY 1993, AMS inspected and graded according to contract specifications, approximately 16.3 million pounds of livestock delivered to settle futures contracts for the Chicago Mercantile Exchange and the Mid-America Commodity Exchange.

Fees and Charges in Effect:

| Service Performed | FY 1993 Hourly Fees |
|---|---|
| Base Grading | $29.40 |
| Overtime Grading | $32.80 |
| Holiday Grading | $58.80 |

f. Processed Fruit and Vegetable Grading:

In FY 1993, 9.5 billion pounds of processed fruits and vegetables were graded at 305 processed products plants. In addition, AMS successfully completed development and implementation of an automated billing program in all processed products field offices. To improve efficiency in response to changing workload, AMS has downsized the Los Angeles, CA area field office to a suboffice and transferred the office's administrative responsibilities to the Fresno, CA area office.

Fees and Charges in Effect:

| Service Performed | FY 1993 Hourly Fees | | |
|---|---|---|---|
| | Base | Holiday | Overtime |
| Lot Inspection | $37.00 | $74.00 | $55.50 |
| Yearly Contract (in-plant) | $32.00 | $64.00 | $48.00 |
| Requested Additional Graders (in-plant) | $37.00 | $74.00 | $55.50 |
| Seasonal Contract (in-plant) | $37.00 | $74.00 | $55.50 |

g. Fresh Fruit and Vegetable Grading:

Grading services for fresh fruits and vegetables are available at shipping points and in receiving markets anywhere in the U.S. and in Puerto Rico. In FY 1993, approximately 80 billion pounds of fresh fruits, vegetables, and specialty crops were graded by AMS by approximately 5,500 Federally-supervised and licensed State employees. AMS has redesigned all official grading certificates to reduce the number of different certificates used at receiving markets and to permit capture of program data into a planned national database. All field offices will be using the national database by the third quarter of FY 1994.

Fees and Charges in Effect:

| Service Performed | FY 1993 Fees | |
|---|---|---|
| Quality and Condition Inspections | $52.00 | Half-carlot or less |
| | $62.00 | More than half-carlot up to full-carlot |

| | | |
|---|---|---|
| | $10.00 | Each additional lot |
| Condition Only Inspections | $47.00 | Half-carlot or less |
| | $52.00 | More than half-carlot up to full-carlot |
| | $10.00 | Each additional lot |
| Five or More Products From the Same Truck or Railcar: | $220.00 | First five products |
| | $10.00 | Each additional product or lot |
| Quality and/or Condition Inspection From Ships at Dockside: | $ .01 | Packages less than 15 lbs |
| (per package) | $.02 | Packages 15-29 lbs |
| | $.03 | Packages 30 lbs or more |
| | $62.00 | Minimum per product |
| Government and Other Inspections: | $31.00 | Per hour (1/2 hr. minimum) |
| | $15.50 | Per hour additional to other charges |

h. Dairy Products Grading:

Dairy products grading, laboratory analysis, and plant inspections assure purity and quality of dairy products. An AMS grade is required on all products sold to the Commodity Credit Corporation under the dairy price support program. Upon request, AMS also grades dairy products sold in commercial channels. In FY 1993, AMS graded approximately 1.5 billion pounds of dairy products, and conducted 906 dairy plant inspections to assure sanitation of processing facilities.

Fees and Charges in Effect:

| Service Performed | FY 1993 Hourly Fees |
|---|---|
| Continuous Resident Service | $39.60 |
| Product Grading | $44.60 |
| Night Differential Product Grading | $49.00 |
| Holiday, Saturday, Sunday | $69.90 |

i. Standardization:

Domestic and international standards are developed for use in grading, acceptance and certification services for poultry, eggs, meat, dairy products, fresh and processed fruits and vegetables, cotton, tobacco, naval stores, wool, mohair, and livestock. In FY 1993, 119 standards were reviewed, including 34 for cotton products, 3 for tobacco, 10 for fresh and 40 for processed fruit and vegetable products, 2 for poultry and 30 for meat. As a result, one processed fruit and vegetable standard was revised.

## MARKET PROTECTION AND PROMOTION

Current Activities:

AMS administers several laws under this activity, including the Agricultural Marketing Act of 1946; the Food, Agriculture, Conservation, and Trade Act of 1990; tne Federal Seed Act; the Plant Variety Protection Act; research and promotion acts for beef, cotton, dairy products, eggs and egg products, fluid milk, honey, pork, soybeans, watermelon, pecans, mushrooms, and potatoes; the Export Apple and Pear Act; and the Export Grape and Plum Act. These laws regulate various marketing activities and the administration of each includes one or more of the following: collection of pesticide residue data and recordkeeping; issuance, suspension or revocation of licenses or registration; collection and testing of seed samples; audits of books and records; investigation of complaints and violations; settlement of disputes; and legal protection to developers of new varieties of plants which reproduce sexually.

Selected Examples of Recent Progress:

1. Pesticide Recordkeeping Program:

The Food, Agriculture, Conservation, and Trade Act (FACT) of 1990, Subtitle H, Sect. 1491, states that the Secretary of Agriculture, in consultation with the Administrator of the Environmental Protection Agency (EPA), shall require certified applicators of restricted use pesticides to maintain records comparable to records maintained by commercial applicators of pesticides in each State. The Secretary of Agriculture and the Administrator of EPA shall survey the records required by the statute to develop and maintain a data base that is sufficient to enable USDA and EPA to publish annual comprehensive reports concerning agricultural and nonagricultural pesticide use.

The National Agricultural Statistics Service (NASS) will collect data from agricultural producers, add the information to their data base on agricultural pesticide use, and provide an annual report to Congress on Federal restricted use pesticides.

AMS published the final regulations, 7 CFR Part 110, "Recordkeeping Requirements for Certified Applicators of Federally Restricted Use Pesticides" on April 9, 1993. The regulations became effective on May 10, 1993. AMS has focused on the delivery of educational programs and materials to provide information on the new recordkeeping regulations, specifically targeting certified private applicators.

In addition, AMS provided funding to the Extension Service to develop educational materials and programs specific to the Federal Pesticide Recordkeeping program. Funds were distributed to the State Cooperative Extension Services for utilization in their ongoing pesticide education program.

AMS also entered into a cooperative agreement with the National Association of State Departments of Agriculture (NASDA) to conduct two workshops with State pesticide regulatory officials. Those workshops were designed to improve communications between the States and explain how AMS intends to administer the program through cooperative agreements with State pesticide regulatory agencies.

Six pilot projects with the State Departments of Agriculture in Florida, Washington, Arizona, Pennsylvania, Vermont, and West Virginia were completed in FY 1993. The information gathered by the pilot projects will be utilized by AMS in administering the Federal Recordkeeping Program.

2. Pesticide Data Program:

The Pesticide Data Program (PDP) collects and analyzes samples to detect pesticide residues in selected commodities from the Nation's food supply. In November 1992, the first Executive Steering Committee meeting was held. This meeting sanctioned the present liaison and working groups set up between USDA, the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA), as stated in the June 1992 Memorandum of Understanding.

In January 1993, three additional states: Colorado, North Carolina, and Ohio, began sampling of the 12 commodities in PDP, joining the states of California, Florida, Michigan, New York, Texas and Washington. The participation of these states increased the number of samples collected for each commodity from 52 to 60 per month. The addition of these 3 states forms the basis of a national program that represents more than 50 percent of the nation's population and regional diversity.

The modified sampling design by the National Agricultural Statistics Service was implemented in January 1993 and provides for "proportional to site size sampling." This modified design is statistically defensible and allows national inferences from the 1993 pesticide residue data.

Standard Operating Procedures based on the EPA's Good Laboratory Practices were finalized for sample collection, laboratory analysis and data reporting. PDP has a defined statistically defensible sampling rationale, characterization of analytical testing methodology, data quality, and residue reporting criteria. These program principles mirror similar statements regarding residue testing programs embodied in the National Academy of Sciences report entitled, "Pesticides in the Diets of Infants and Children," released in June 1993.

At the end of FY 1993, PDP included 34 of the 38 pesticides from the EPA priority list. Multi-residue analyses for carbamates were added in January 1993. Single pesticide analyses were expanded to five commodities for benomyl and to six commodities for 2,4-D analyses. In July 1993, the program began formetanate analyses for apples and peaches. In total, approximately 7,700 samples from 375 commodity/pesticide pairs generated almost 30,000 analyses. These analyses resulted in the detection of over 60 different pesticides; more than 50 percent higher than in FY 1992. The data information system was completed and used to produce the January-June 1992 semi-annual report published in July 1993.

3. Federal Seed Program:

a. Federal Seed Act:

AMS has cooperative agreements with each State to regulate interstate commerce of agricultural and vegetable seeds with regard to labeling. Under these agreements, the States refer apparent violations of the Federal Seed Act to AMS for verification and appropriate action. In cooperation with State agencies, AMS conducted field tests on over 1,410 samples at six different locations to determine trueness-to-variety of seed in interstate commerce. In FY 1993, 611 new cases were received from 22 States. Thirty Federal Seed Act cases were settled administratively during FY 1993, with penalty assessments totaling $43,250. The penalty assessments ranged from $300 to $9,000.

To promote uniformity in testing inspection, AMS conducted one regional Seed Analyst Workshop, two Seed Analyst Schools and one Inspector Training Workshop.

b. Agricultural Marketing Act:

AMS offers seed inspection and certification services to interested parties for a fee. Most of the users of this service are exporters of seed. During FY 1993, over 1,685 seed analysis certificates were issued.

4. Plant Variety Protection Act:

The Plant Variety Protection Act (PVPA) is a voluntary program providing legal protection to developers of new varieties of plants which reproduce sexually. Protection under the Act is currently given to varieties of approximately 100 species of plants. Each developer of a new variety is assessed a fee of $2,600 to cover the cost of filing, searching, issuing, informing the public, and maintaining plant variety protection certificates. The current fees for protection were instituted January 19, 1993.

AMS received a total of 316 applications for protection of new varieties of seed-reproduced plants in FY 1993. A total of 609 applications, including some from previous years, were pending action at the end of FY 1993. Searches were conducted on 325 applications to determine whether the plant constituted a new variety and 272 certificates of protection were issued. A total of 2,795 certificates were in force at the end of FY 1993 and protection expired on 102 varieties during the year.

5. Research and Promotion Programs:

AMS provides administrative oversight to a number of industry-funded research and promotion programs. Industry research and promotion boards collect assessments from producers, and sometimes importers and handlers, to carry out programs aimed at strengthening the demand for and improving the quality of beef, cotton, dairy products, eggs and egg products, honey, limes, pecans, mushrooms, pork, potatoes, soybeans, and watermelons.

It is the responsibility of AMS to review and approve the budgets and projects proposed by the boards. The industry reimburses AMS for the costs of administrative oversight activities. In 1990, the Farm Bill authorized research and promotion programs for pecans, mushrooms, limes, soybeans, and fluid milk promotion. To date, the soybean, mushroom and pecan programs have been implemented. The Department held a referendum for a processor-funded fluid milk promotion program in September and the program will be implemented in FY 1994.

Established in 1966, the Cotton Research and Promotion Program is completing its 27th year of work toward strengthening cotton's competitive position and expanding domestic and foreign markets for U.S. produced cotton. An assessment on imported cotton and the cotton content of imported products was implemented in August 1992. Collections on imports for FY 1993 were $14 million - $2 million more than anticipated. The assessment collections on domestically produced cotton for FY 1993 were $36 million. Domestic collections were reduced due to depressed cotton prices and an industry-initiated reduction of the assessment rate.

The Beef Promotion and Research Act of 1985 authorized the establishment, financing, and operation of a national beef promotion and research program. The Beef Promotion and Research Order, which promotes increased consumption of beef in the United States as well as in foreign countries, became effective in July 1986. In 1993 about $7 million of the $80 million in assessments was collected from importers. The National Beef Promotion and Research program received $44 million of the assessments while qualified State beef council programs received the remaining $36 million.

The Pork Promotion, Research, and Consumer Information Act of 1985 authorized the establishment of a national industry-funded and operated pork promotion program. The Pork Promotion, Research, and Consumer Information Order, which strengthens the position of pork in the marketplace as well as in foreign markets, became effective in September 1986. Approximately $2 million of the $40.6 million assessments collected in 1993 were from importers.

The Soybean Promotion, Research, and Consumer Information Act of 1990 authorizes a national industry-funded promotion and research program for soybeans and soybean products. An Order implementing the legislation was issued by the Secretary of Agriculture on July 9, 1991. Collection of assessments began September 1, 1991. Total assessments generated under the Act are about $50 million annually. The State boards retain half of the funds collected to fund State initiated programs, while the remaining half of the funds are provided to the United Soybean Board. After refunds are paid, the United Soybean Board has an annual net income of about $20 million, with the states retaining a like amount. As required under the Act, the U.S. Department of Agriculture will conduct a referendum among soybean producers early in 1994 to determine if producers want the program to continue. Producers may obtain full refunds of assessments prior to the referendum's outcome.

The Honey Research, Promotion and Consumer Information Act of 1984, as amended, authorizes a program to strengthen the demand for honey in the marketplace. The Order, issued by the Secretary of Agriculture on July 21, 1986, provided for the establishment of the National Honey Board. Producers and importers may apply for an exemption from paying assessments if they produce less than 6,000 pounds of honey per year and such honey is distributed directly to retail outlets. A producer or importer who consumes honey at home or donates it, rather than sells it, may also apply for an exemption. In FY 1993 the Board received approximately $3 million in assessments and refunded approximately $34 thousand. Two million dollars was collected on domestic honey and $1.1 million was collected on imported honey. A focal point of the Board's projects is to assure consumers that honey is a wholesome food.

The Egg Research and Consumer Information Act, as amended, authorizes the collection of nonrefundable assessments to finance research, promotion, and education activities. During FY 1993, egg producers paid assessments at 5 cents per 30-dozen case of commercial eggs totaling approximately $7.5 million. Projects related to food safety in food service and high-risk health care institutions, as well as retail establishments, were given high priority. Funding continued for four and began for two other research studies that examine the effect of egg consumption on serum cholesterol levels. In addition, a new advertising campaign was launched, with television commercials airing on network and cable channels. Other programs focused on nutrition education and promotion of egg products and spent fowl for schools.

The Dairy and Tobacco Adjustment Act of 1983 authorized a national program for dairy product promotion, research, and nutrition education as part of a comprehensive strategy to reduce milk supplies and increase consumption of milk and dairy products. This program is funded by a mandatory 15-cent per hundredweight assessment on all milk produced and marketed commercially in the contiguous 48 states. The program is administered by a National Dairy Promotion and Research Board. The Board's revenue from producer assessments in FY 1993 was $76.3 million of the approximately $226 million collected. The remainder of the funds collected are utilized by qualified State and regional promotion, research, or nutrition education programs. In an effort to expand export sales of dairy products, the Board has signed a Memorandum of Agreement with USDA's Foreign Agricultural Service. This agreement established cooperator status for the Board and enables them to receive funds for marketing and promotion activities in global markets. The export program targets the Pacific Rim countries and Mexico as the first area for marketing and promotion of value-added dairy products. USDA is required to submit to Congress an

annual report describing activities conducted under the Dairy Promotion and Research Order, accounting of funds collected and spent, and an independent analysis of the effectiveness of the program. The most recent report was submitted on July 1, 1993. A referendum to continue the dairy promotion program was held in August 1993. Approximately 71.4 percent of the dairy farmers who voted in the referendum favored support of this program.

Since its establishment in 1972, the National Potato Promotion Board, as authorized by the Potato Research and Promotion Act of 1971, has successfully carried out a coordinated program of research, development, advertising, and promotion. In FY 1993, the Board collected $7.2 million in assessment revenue. The 1990 Farm Bill amended the Act to authorize assessments on imported potatoes, processed potato products, and seed potatoes. Assessments on imports began in November 1992, and for FY 1993 added $226 thousand to the funds available to the Board. In cooperation with the Foreign Agricultural Service, the Board promotes potatoes in the Pacific Rim countries. For the Board's marketing year, April 1993 to March 1994, it received $3.2 million in FAS funds to operate its export marketing plan. The Board's current domestic promotion program aims to convince consumers to serve potatoes at home more often. The program will also continue to reinforce the themes of nutrition and convenience that have been successful in changing consumers' attitudes about potatoes over the past years.

The Watermelon Research and Promotion Act authorizes the establishment of an effective, continuous, and coordinated program of research, development, advertising, and promotion of watermelon. This Act is designed to strengthen the watermelon's competitive position in the marketplace, and to establish, maintain, and expand domestic and foreign markets for watermelons produced in the United States. The Watermelon Research and Promotion Plan was issued in June 1989, and full implementation of the Plan began in March 1990. Both producers and handlers are assessed under this program. For FY 1993, the Board is expected to report approximately $860,000 in assessments, and refunds of approximately $250,000. The Board is aggressively pursuing its food service, retailer, and public relations programs. Legislation has been introduced to eliminate refunds and to authorize the assessment of imported watermelons.

The Pecan Promotion and Research Act of 1990 authorized the establishment of a coordinated national program for generic pecan promotion, research, industry and consumer information. This Act is designed to maintain and expand existing domestic and foreign markets and develop new markets for pecans. The Pecan Promotion and Research Plan became effective on May 1, 1992. The initial Pecan Marketing Board met in August 1992. The Board collected about $630 thousand in domestic assessments and $270 thousand in import assessments during its fiscal year ending September 30, 1993. Referendum balloting took place September 22nd through October 1, 1993. The ballots are being tallied to determine if pecan growers, grower-shellers, and importers favor the continuation of the pecan plan.

The Lime Research, Promotion, and Consumer Information Act of 1990 authorizes the establishment of an effective, continuous and coordinated national program for limes. The Act is designed to strengthen the position of the lime industry in domestic and foreign markets, and maintain, develop and expand markets for limes. The Act authorizes a maximum assessment rate of one cent per pound on limes produced domestically or imported into the United States. However, producers and importers who produce or import less than 35,000 pounds of limes per year are exempt. The first handler is responsible for collecting the assessment from the producer and remitting it to the Board. Importers pay the assessment when limes enter the United States. The Lime Research, Promotion, and Consumer Information Order became effective on January 27, 1992. The first Lime Board met in October 1990 to consider a budget and an assessment rate. However, the program is currently on hold pending a technical amendment to the Act regarding the variety of limes to be covered by the program.

The Mushroom Promotion, Research, and Consumer Information Act authorizes the establishment of an effective, continuous, and coordinated national program for fresh mushrooms. The purpose of the program is to strengthen the position of the mushroom industry in domestic and foreign markets and to maintain, develop, and expand markets for fresh mushrooms. The Mushroom Promotion, Research, and Consumer Information Order became effective on January 8, 1993. Producers and importers of less than 500,000 pounds of fresh mushrooms annually are exempt from assessments. Assessment payments did not begin until August 1, 1993; therefore, assessments under the program in FY 1993 are insignificant.

| | FY 1993 | |
|---|---|---|
| | Assessments Collected | Refunds to Producers |
| | (Millions of Dollars) | |
| Beef | $44.2 | 0.0 |
| Pork | 32.6 | 0.0 |
| Cotton | 50.9 | $0.4 |
| Egg | 7.5 | 0.0 |
| Honey | 3.1 | 0.0 |
| Potatoes | 7.2 | 0.0 |
| Dairy | 76.3 | 0.0 |
| Pecans | 0.9 | 0.0 |
| Watermelon | 1.0 | 0.3 |
| Mushrooms | 0.0 | 0.0 |
| Soybeans | 23.5 | 0.0 |

## TRANSPORTATION SERVICES

Current Activities:

The Transportation Services program promotes and assists in the development of an efficient agricultural transportation system to help improve farm income, expand exports, and meet the transportation needs of rural America. AMS provides assistance to State and local decision-makers and to farmers and shippers in regulatory, policy, and legislative matters. To accomplish this, AMS conducts technological research, as well as economic studies and analyses of domestic and international transportation systems. Also, AMS provides technical assistance and information on agricultural transportation, rural access, and food distribution matters to producers, producer groups, shippers, rural communities, carriers, government agencies, and universities.

Selected Examples of Recent Progress:

1. International Surface Transportation Efficiency Act (ISTEA) Workshops

A key ISTEA provision requires the states to include all affected groups in their transportation planning. To ensure that agricultural and rural transportation concerns are considered in the planning process, AMS co-

sponsored eight regional workshops to inform rural residents about ISTEA and the need to become involved.

2. Rural Transportation Infrastructure Research

AMS is working with an interdisciplinary research team conducting comprehensive research on the status, condition and funding of the U.S rural transportation infrastructure. Three projects are underway, examining the status of rural bridges 20 feet and over in length, the status of the rural rail system since deregulation and its impact on the rural economy, and the impact of decentralized transportation programs (ISTEA) on the condition of roads and bridges in rural areas.

3. Railcar Supply for Grain Shippers

Shortages of covered hopper railcars have been a constant problem for grain shippers throughout much of the country since the late 1980's. In FY 1993, AMS followed up an earlier analysis with a study focused on the economic impact of grain car availability on U.S. grain prices, and the effect of fleet sizing and operations on U.S. rail carriers. The study indicated that the capacity of the Nation's grain car fleet directly influences the prices many farmers receive for their grain.

4. Representation for Rural and Agricultural Shippers

AMS acted as a liaison with the U.S. Army Corps of Engineers on behalf of agricultural shippers during the extensive Mississippi River system flooding in the summer of 1993. AMS also filed comments with the Department of Transportation on proposed regulations prohibiting the cross-hauling of food products with non-food contaminants under the Sanitary Food Transportation Act; and with the Interstate Commerce Commission regarding a proposal to exempt the railroad transport of export corn and soybeans from economic regulation.

5. Hazardous Materials Transportation

AMS prepared tip sheets on hazardous materials transportation training regulations. The tip sheets summarize Federal regulations governing the transportation of hazardous materials for farmers and other rural businesses that transport small amounts of chemicals for on-farm use.

6. U.S.-Mexico Transportation

AMS provides technical assistance and information to U.S. firms interested in exporting agricultural commodities and food products to Mexico. In FY 1993, AMS focused on Mexican border regulations and procedures, provisions of the North American Free Trade Agreement (NAFTA), and the availability of truck and railroad services to Mexico. We are conducting research to identify transportation-related opportunities for increased exports of perishables to Mexico, and to describe the logistics of exporting grain to Mexico. AMS represented the Department in negotiations of the NAFTA land transportation issues and participates in meetings of the U.S.-Mexico Bilateral Transportation Working Group.

7. Export Transportation Workshops

AMS organized workshops in six states during FY 1993 to provide first-time exporters with an understanding of the international transportation system and how it affects product marketing, cost, and quality. Workshop topics include ocean and air freight rates and services, cargo insurance, product handling, port operations, and transport documentation. An "Agricultural Export Transportation Workbook" was published as a training tool for the

workshops. A project was initiated to produce a how-to-export video and a more detailed workbook for persons interested in exporting to Hong Kong, Taiwan, Japan, and Singapore.

AMS continued to develop an educational program to promote the importance of proper handling and transportation of livestock shipped to overseas markets. A "Guidebook of Livestock Exporters" was published and will be updated in 1994 to include more information on the trucking of animals. AMS is also producing a video on livestock trucking procedures. A livestock exporter workshop was held in June 1993.

8. International Issues

USDA testified before the House Committee on Government Operations to discuss the impact of the Shipping Act of 1984 on agricultural exports, and participated in maritime policy reviews in two interagency groups. After analysis of the impact of ocean shipping regulations and policy on agricultural trade, AMS published a draft report entitled "Maritime Policy and Agricultural Interests: Impacts of the Conference System."

AMS continued a pilot project to track and report commodity ocean freight charges, transit times, and market shares from the U.S. to East Asian markets. A group of shippers, freight forwarders, and carriers responded enthusiastically after reviewing the draft of the "Ocean Container East Asian News (OCEAN) Rate Bulletin."

A computerized data base of ocean freight rates for bulk grain shipments has been refined, and is updated weekly. This data is used to monitor trends in ocean freight costs for U.S. and foreign origin grain shipments. Quarterly rate summaries are being issued and distributed to exporters, ports, and Federal agencies.

AMS is implementing the Agreement on the International Carriage of Perishable Foodstuffs (ATP) in the United States. Although the ATP certification is voluntary in the United States, it is mandatory in Europe. The ATP requires that transport equipment used to move perishables between countries be inspected, tested, certified, and marked to ensure that the equipment is properly insulated and capable of maintaining a prescribed temperature. Maximum temperatures for the carriage of frozen food, meat, poultry, dairy, and seafood products are given. The ATP program has been used primarily by U.S. trailer and mechanical refrigeration unit manufactures who export equipment to Europe. In 1993, AMS certified 58 trailers worth $3.2 million.

At the request of the Foreign Agriculture Service, AMS continued activities in Russia and Poland under the Emerging Democracies Program. AMS published "An Overview of Agricultural Transportation in the Former Soviet Union." A port study of St. Petersburg resulted in a number of recommendations to remove institutional and operational barriers to increase U.S. exports. Test shipments of U.S. agricultural products to Poland sparked interest in larger, container loads.

At the request of the Office of International Cooperation Development and other organizations, AMS conducted transportation and marketing seminars in Venezuela, Costa Rica, and the Philippines. AMS also participated in an evaluation of El Salvador's market for U.S. consumer-ready products.

In cooperation with Washington State University, AMS analyzed the impact of Canadian rail subsidies for hay, fry pea, and lentil exports and we are finalizing a study with California State University that regarding Mexico's Transportation, Distribution, and Logistical Infrastructure for U.S. Agricultural Products.

Tests were conducted on the shelf life of fresh fruits and vegetables during surface shipment to Poland with the goal of enhancing agricultural trade between the U.S. and Poland. Numerous tests were conducted in the laboratory using coatings and environmental techniques to extend the shelf life. An air shipment of 14 fresh fruits and vegetables was sent to Poland to measure market acceptance and preferences. Then a containerized surface shipment was made using controlled environment technology.

## WHOLESALE MARKET DEVELOPMENT

Current Activities:

AMS studies and promotes improvement of facilities that enable market access by the small to medium-sized grower. Applied research is conducted to inform states, localities, market managers, and growers of changes in the market that allow them to make strategic decisions for future product development. AMS has recently expanded the program to include auction and collection markets, retail farmers' markets, and public markets, and on expanding markets in and near metropolitan areas. This expansion will provide more market access for the small grower, more nutritious foods for the urban poor, and will create jobs through the development of facilities.

Selected Examples of Recent Progress:

Chicago, IL

AMS has completed its portion of a study to replace the old, outdated, and inefficient facility at the South Water Street [Wholesale] Market. Originally built in 1939, this facility is critical to the distribution of fresh fruit and vegetables in the Chicago metropolitan area. This improved facility will enable the City to keep 2,000 jobs and maintain $642 million in commerce. Currently, the City of Chicago is arranging for financing to develop the market. Another project underway is the replacement of the Randolf and Fulton Streets Market, which is similar to the South Water Street program. The feasibility of Chicago becoming a major Midwestern intermodal hub for the distribution of food and fiber products is also being studied.

Toledo, Ohio Farmers' Market Facility Study

The Toledo Farmers' Market serves as a vital outlet for local fruits, vegetables, greenhouse products, crafts, baked goods and other homemade food items in the greater Toledo metropolitan area. However, facility and land constraints severely impact the market's ability to expand and provide needed space and services to its users. The City of Toledo owns and manages the Market, and has undertaken an aggressive renovation project designed to improve and increase grower and consumer utilization of this facility. AMS evaluated existing market conditions and provided recommendations for improved facilities and expansion. The Ohio State University Cooperative Extension Service, the Toledo Department of Natural Resources, and the Toledo Warehouse District Association (a non-profit public group) cooperated with AMS to complete the study.

Maine Marketing Facility Study

AMS is assessing the need for a multi-purpose center to support agricultural trade, wholesale activity, initial processing, and other activities needed to continue an effective food industry in the region. Preliminary design concepts have been developed and AMS is developing specific requirements for a new marketing and small scale processing center.

Jackson, MS Farmers' Market

AMS has completed the preliminary stages for reconstructing the Jackson Farmers' Market. The Mississippi Department of Agriculture will send site plans for the market and AMS will work on general layouts to determine the capacity of the property. AMS will also determine if the current site is the ideal location for the market to be reconstructed.

Columbus, OH and Ashville, NC

AMS initiated projects to evaluate different methods of serving the inner-city retail food needs of major cities and, at the same time, provide additional outlets to regional farmers. Initial efforts in the project have focused on a modernization effort of an inner-city market hall operated by the North Market Development Authority in Columbus, Ohio and the Grove Arcade Public Market in Asheville, NC. Cooperative arrangements have been initiated to assist in developing these plans. Information developed will provide a planning basis for similar efforts in other cities and a benchmark for comparison with other inner-city food retailing efforts.

## PAYMENTS TO STATES AND POSSESSIONS

## STATUS OF PROGRAM

## FEDERAL-STATE MARKETING IMPROVEMENT PROGRAM

Current Activities:

Through grant agreements with State Departments of Agriculture and other State agencies, the Federal-State Marketing Improvement Program supports joint projects aimed at improving the efficiency of the agricultural marketing chain. The States contribute at least half of the project costs. The work is performed by State personnel, employees of land grant or 1890 universities, or is contracted out to private industry.

Selected Examples of Recent Progress:

During FY 1993, 32 projects involving 24 States were approved. In addition to the $1.2 million provided by Congress for these projects, the States and other resources contributed over $1.5 million. Requests were received from 35 States for 68 projects totalling of $3.8 million. Examples of funded projects are as follows:

| Federal Funding | Participating States | Project |
|---|---|---|
| $57,407 | ARKANSAS | Market Testing Value-Added Fruit Products<br>A project to assist producers of concord grapes to find alternative markets and products after a major processor pulled out. |
| $40,000 | CALIFORNIA | Specialty Products Research and Education<br>A project to educate producers on marketing opportunities for specialty products including lamb and apples. |
| $55.000 | CONNECTICUT | Six State New England Grown Program<br>A project to bring together six States in a joint marketing effort for local producers. |
| $32.000 | FLORIDA | Market Development Strategies for the Tropical Fruit Industry<br>A project to seek alternative fruit crops for South Florida producers that lost limes and mangoes in the hurricane. |
| $50,000 | GEORGIA | Rural To Urban Marketing Program<br>A project to help minority farmers develop alternative crops and marketing systems. |
| $42,183 | MINNESOTA | Organic Food Inspector Training Program<br>A project to develop an organic inspector training program and manual for inspectors. |
| $80,000 | UTAH | Create a Certified Alfalfa Program<br>A project to develop quality standards and marketing plans for certified alfalfa. |

# PERISHABLE AGRICULTURAL COMMODITIES ACT

Current Activities:

The Perishable Agricultural Commodities Act (PACA) and the Produce Agency Act (PAA), both funded by annual license fees, are designed to: (1) protect producers, shippers, distributors, and retailers from loss due to unfair and fraudulent practices in the marketing of perishable agricultural commodities; and (2) prevent the unwarranted destruction or dumping of farm products handled for and on behalf of others.

Commission merchants, dealers, and brokers handling fresh and frozen fruits and vegetables in interstate and foreign commerce require a PACA license. Violations of the Act are investigated and result in: (1) informal agreements between the two parties; (2) formal decisions involving payments to injured parties; or (3) suspension or revocation of licenses and/or publication of the facts.

Selected Examples of Recent Progress:

1. Perishable Agricultural Commodities Act:

   A. Operations Improvements:

      The program received approximately 135,000 trust notices in FY 1993, an 8 percent increase over FY 1992. Despite the increased workload, AMS processed these notices without increased resources by implementing a new on-line database system that significantly reduced the time needed to retrieve information. Also, during FY 1993, AMS assumed responsibility for the review and issuance of reparation default orders previously handled by the Office of the General Counsel, reducing handling time by half.

   B. Informal Reparation Complaints:

      During FY 1993 approximately 39,500 inquiries were received from the produce industry seeking advice concerning disputes. AMS assistance enabled many traders to avoid marketing problems which could have resulted in the filing of complaints under this law.

      There were over 4,000 new reparation cases filed in FY 1993. These cases resulted in informal settlements of approximately $25.7 million to PACA licensees and unlicensed growers. This is an increase of 25 percent over FY 1992 totals.

   C. Trust legislation:

      Trust notices are filed by unpaid sellers under the statutory trust provisions of the Perishable Agricultural Commodities Act. In the event a buyer files for bankruptcy or becomes insolvent, this provision places sellers of fruits and vegetables in a secured position and also improves the timeliness of payments. Nearly $860 million has been returned to trust claimants in FY 1993, a 28 percent increase over FY 1992.

   D. Formal Reparation Complaints:

      In FY 1993, there were 1,112 decisions and orders issued by USDA's Judicial Officer, awarding reparations amounting to over $15 million.

# FUNDS FOR STRENGTHENING MARKETS, INCOME, AND SUPPLY (SECTION 32)

The estimates include appropriations language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Funds For Strengthening Markets, Income and Supply (Section 32):

> Funds available under section 32 of the Act of August 24, 1935 (7 U.S.C. 612c) shall be used only for commodity program expenses as authorized therein, and other related operating expenses, except for: (1) transfers to the Department of Commerce as authorized by the Fish and Wildlife Act of August 8, 1956; (2) transfers otherwise provided in this Act; and (3) not more than [$10,309,000] $10,375,000 for formulation and administration of Marketing Agreements and Orders pursuant to the Agricultural Marketing Agreement Act of 1937, as amended, and the Agricultural Act of 1961. [In fiscal years 1994 and 1995, section 32 funds shall be used to promote sunflower and cottonseed oil exports to the full extent authorized by section 1541 of Public Law 101-624 (7 U.S.C. 1464 note), and such funds shall be used to facilitate additional sales of such oils in world markets.]

This change proposes deletion of the language included in the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriation Act, 1994. These activities will be conducted through initiatives for sales of vegetable oils under the export enhancement program.

## FUNDS FOR STRENGTHENING MARKETS, INCOME, AND SUPPLY (SECTION 32) -- CURRENT LAW

| | | |
|---|---|---|
| Permanent Appropriation, 1994 | | $5,355,068,525 |
| Less transfers to: | | |
| Department of Commerce to promote and develop fishery products and research pertaining to American fisheries | | -61,944,127 |
| Food and Nutrition Service, Child Nutrition Programs | | -4,770,109,000 |
| Total transfers | | -4,832,053,127 |
| Adjusted Base for 1994 | | 523,015,398 |
| Budget Estimate, 1995: | | |
| Annual permanent appropriation | $5,701,399,755 | |
| Less transfers to: | | |
| Department of Commerce | -62,000,000 | |
| Food and Nutrition Service | -5,212,818,000 | |
| Total transfers | -5,274,818,000 | |
| Budget Estimate, 1995 | | 426,581,755 |
| Decrease from adjusted 1994 | | -96,433,643 |

### SUMMARY OF INCREASES AND DECREASES - CURRENT LAW
(On basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Program Changes | 1995 Estimated |
|---|---|---|---|---|
| Commodity Purchases | $413,000,000 | -- | -$13,000,000 | $400,000,000 |
| Sunflowerseed Oil and Cottonseed Oil Purchases | 50,000,000 | -- | -50,000,000 | -- |
| Commodity Purchase Services | 6,116,000 | +$22,000 | -40,000 | 6,098,000 |
| Marketing Agreements and Orders | 10,309,000 | +73,000 | -7,000 | 10,375,000 |
| Total Available | 479,425,000 | +95,000 | -63,047,000 | 416,473,000 |

### PROJECT STATEMENT - CURRENT LAW
(On basis of adjusted appropriation)

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 1. Commodity Purchases: | | | | | | | |
| a. Child Nutrition Program Purchases | $399,913,724 | -- | $400,000,000 | -- | -- | $400,000,000 | -- |
| b. Emergency Surplus Removal | 63,398,850 | -- | 13,000,000 | -- | -$13,000,000 (1) | -- | -- |
| Subtotal | 463,312,574 | -- | 413,000,000 | -- | -13,000,000 | 400,000,000 | -- |
| 2. Disaster Relief | 4,636,090 | -- | -- | -- | -- | -- | -- |
| 3. Sunflowerseed Oil & Cottonseed Oil Purchases | 50,000,000 | -- | 50,000,000 | -- | -50,000,000 (2) | -- | -- |
| 4. Diversion Payments | 8,600,000 | -- | -- | -- | -- | -- | -- |
| 5. Administrative Funds | | | | | | | |
| a. Commodity Purchase Services | 5,059,540 | 42 | 6,116,000 | 47 | -18,000 | 6,098,000 | 46 |
| b. Marketing Agreements & Orders | 9,569,258 | 123 | 10,309,000 | 123 | +66,000 | 10,375,000 | 123 |
| Subtotal | 14,628,798 | 165 | 16,425,000 | 170 | +48,000(3) | 16,473,000 | 169 |
| Total obligations | 541,177,462 | 165 | 479,425,000 | 170 | -62,952,000 | 416,473,000 | 169 |
| Recovery of Prior Year obligations | -39,736,525 | -- | -- | | -- | -- | |
| Unobligated balance available, start of year | -120,787,568 | -- | -246,300,847 | -- | -43,590,398 | -289,891,245 | -- |
| Unobligated balance available end of year | 246,300,847 | -- | 289,891,245 | -- | 10,108,755 | 300,000,000 | -- |
| Total, Available or Estimate | 626,954,216 | 165 | 523,015,398 | 170 | -96,433,643 | 426,581,755 | 169 |

OBLIGATION LEVELS
(On basis of adjusted appropriation)

| Item | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| Appropriation or estimate .. | $4,978,817,276 | $5,355,068,525 | $5,701,399,755 |
| Unobligated balance available, start of year . | 120,787,568 | 246,300,847 | 289,891,245 |
| Recovery of Prior Year obligations ..... | 39,736,525 | -- | -- |
| Total available ..... | 5,139,341,369 | 5,601,369,372 | 5,991,291,000 |
| Less transfers to: | | | |
| Food and Nutrition Service, Child Nutrition Programs .. | -4,290,455,000 | -4,770,109,000 | -5,212,818,000 |
| Department of Commerce . | -61,408,060 | -61,944,127 | -62,000,000 |
| Total transfers ..... | -4,351,863,060 | -4,832,053,127 | -5,274,818,000 |
| Total available after transfers ..... | 787,478,309 | 769,316,245 | 716,473,000 |
| Less total obligations ..... | -541,177,462 | -479,425,000 | -416,473,000 |
| Unobligated balance available, end of year.... | 246,300,847 | 289,891,245 | 300,000,000 |

EXPLANATION OF PROGRAM

Under Section 32 of the Act of August 24, 1935, (7 U.S.C. 612c) an amount equal to 30 percent of customs receipts collected during each preceding calendar year and unused balances up to $300 million are available for encouraging the domestic consumption and exportation of agricultural commodities. An amount equal up to 30 percent of receipts collected on fishery products is transferred to the Department of Commerce. Additionally, funds are transferred to the Food and Nutrition Service for use by the Child Nutrition Program as provided in the current Appropriation Act.

Commodity Purchases:

Pursuant to Section 32, the Agricultural Marketing Service directs the purchase of commodities such as meats and fish, fruits and vegetables, and poultry in order to stabilize market conditions and provide commodities for distribution through the Food and Nutrition Service to schools as part of the entitlement for the National School Lunch Program. In addition, AMS purchases commodities for other domestic feeding programs of the Food and Nutrition Service (FNS). AMS is reimbursed by FNS for the administrative costs associated with purchases made for FNS domestic feeding programs. Commodities purchased for market stability purposes are donated to eligible schools or public or private institutions that operate meal programs.

Commodity Purchase Services Workload Data:

| | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|
| Contract bids received: | | | |
| Fruits and Vegetables ..... | 875 | 900 | 930 |
| Meat and Fish ..... | 462 | 487 | 512 |
| Poultry ..... | 667 | 685 | 700 |
| Total ..... | 2,004 | 2,072 | 2,142 |

| | | | |
|---|---|---|---|
| Contracts awarded: | | | |
| Fruits and Vegetables | 473 | 535 | 560 |
| Meat and Fish | 375 | 400 | 425 |
| Poultry | 465 | 485 | 500 |
| Total | 1,313 | 1,420 | 1,485 |

Summary of Purchases by Commodity Group
(In Thousands)

| Commodity Group | 1992 Actual Pounds | 1992 Actual Obligations | 1993 Actual Pounds | 1993 Actual Obligations |
|---|---|---|---|---|
| Poultry | 159,264 | $116,681 | 99,079 | $86,900 |
| Meat | 193,506 | 246,691 | 179,758 | 223,113 |
| Fruit | 166,919 | 76,727 | 234,566 | 95,562 |
| Dairy | -- | -- | 3,385 | 4,413 |
| Vegetables | 221,473 | 61,881 | 179,667 | 53,325 |
| Total | 741,162 | 501,980 | 696,455 | 463,313 |

Section 32 Commodity Purchases FY 1992 and 1993
(In Thousands)

| Item | 1992 Actual Pounds | 1992 Actual Obligations | 1993 Actual Pounds | 1993 Actual Obligations |
|---|---|---|---|---|
| Almonds, Slivered | 1,553 | $3,199 | -- | -- |
| Apple Slices, Canned | 11,799 | 4,914 | 11,839 | $4,813 |
| Apples, Fresh | 5,677 | 1,916 | 5,513 | 1,383 |
| Applesauce | 22,069 | 6,453 | 22,449 | 6,404 |
| Apricots, Canned | 7,927 | 4,019 | -- | -- |
| Asparagus, Canned | 1,428 | 1,101 | -- | -- |
| Asparagus, Frozen | 277 | 365 | -- | -- |
| Beans, Canned | -- | -- | 16,205 | 3,922 |
| Beans, Dry | 32,244 | 6,513 | 1,318 | 422 |
| Beans, Green, Canned | 24,317 | 6,218 | 27,836 | 7,877 |
| Beans, Green, Frozen | 3,858 | 1,251 | 1,442 | 522 |
| Beans, Refried, Canned | 6,999 | 2,146 | 4,710 | 1,468 |
| Beans, Vegetarian,Canned. | 16,806 | 3,351 | 7,041 | 1,424 |
| Beef, Canned | -- | -- | 504 | 749 |
| Beef, Frozen Ground | 102,600 | 131,168 | 106,686 | 135,324 |
| Beef Patties | 32,069 | 40,233 | 36,764 | 46,782 |
| Blackberries, Frozen | -- | -- | 1,283 | 979 |
| Blueberries, Frozen | -- | -- | 4,154 | 3,463 |
| Caneberry Puree | 2,515 | 2,016 | -- | -- |
| Catfish, Filet Strips | 252 | 733 | -- | -- |
| Catfish, Whole | 2,700 | 4,860 | -- | -- |
| Cheese | -- | -- | 3,385 | 4,413 |
| Cherries, Frozen | -- | -- | 45,329 | 20,157 |
| Chicken, Chilled | 11,413 | 5,711 | 12,924 | 6,969 |
| Chicken, Cooked | 2,106 | 2,406 | 7,644 | 8,315 |
| Chicken, Diced | 10,280 | 22,916 | 4,555 | 10,424 |
| Chicken, Frozen, Cut-Up | 60,224 | 30,601 | 18,250 | 11,325 |
| Chicken, Nuggets | 777 | 1,199 | 490 | 773 |
| Chicken, Patties | -- | -- | 33 | 51 |
| Corn, Canned | 31,963 | 9,160 | 25,983 | 9,152 |
| Corn, Frozen | 2,927 | 1,078 | 2,454 | 891 |
| Date Pieces | 3,060 | 2,398 | -- | -- |

Section 32 Commodity Purchases FY 1992 and 1993
(In Thousands)

| Item | 1992 Actual | | 1993 Actual | |
|---|---|---|---|---|
| | Pounds | Obligations | Pounds | Obligations |
| Eggs, Whole, Frozen ..... | 9,693 | 4,669 | 14,414 | 6,809 |
| Grape Juice, Canned ..... | 10,649 | 3,601 | -- | -- |
| Grapefruit, Fresh ..... | -- | -- | 1,656 | 273 |
| Ham, Cooked, Frozen ..... | 15,912 | 24,549 | -- | -- |
| Mixed Fruit, Canned ..... | 9,200 | 4,810 | 9,937 | 4,581 |
| Oranges, Fresh ..... | -- | -- | 2,917 | 499 |
| Orange Juice, Canned ..... | -- | -- | 18,749 | 4,988 |
| Orange Juice, Frozen ..... | -- | -- | 13,788 | 7,029 |
| Peaches, Canned ..... | 21,248 | 10,522 | 43,929 | 19,316 |
| Peaches, Frozen ..... | 12,240 | 7,949 | 456 | 292 |
| Pears, Canned ..... | 42,652 | 17,008 | 41,883 | 16,977 |
| Pears, Fresh ..... | 4,077 | 1,236 | 3,592 | 1,084 |
| Peas, Canned ..... | 7,159 | 2,205 | 10,035 | 2,576 |
| Peas, Frozen ..... | 5,647 | 2,000 | 4,498 | 1,589 |
| Pineapple, Canned ..... | 9,006 | 4,694 | -- | -- |
| Plums, Canned ..... | -- | -- | 2,273 | 855 |
| Pork, Canned ..... | 12,498 | 16,107 | 540 | 680 |
| Pork, Frozen, Ground ..... | 18,295 | 16,597 | 22,991 | 23,392 |
| Pork, Patties ..... | -- | -- | 277 | 478 |
| Potatoes, Dehydrated ..... | 9,630 | 4,996 | -- | -- |
| Potatoes, French Fries ... | 27,088 | 6,698 | 20,863 | 6,009 |
| Potatoes, Fresh ..... | -- | -- | 1,920 | 314 |
| Potato Rounds, Frozen .... | 25,979 | 6,258 | 21,385 | 6,461 |
| Raisins ..... | -- | -- | 4,819 | 2,470 |
| Salsa, Canned ..... | -- | -- | 2,320 | 824 |
| Salmon, Canned ..... | 3,434 | 5,760 | 6,659 | 9,965 |
| Strawberries, Frozen ..... | 3,247 | 1,974 | -- | -- |
| Sweet Potatoes, Canned ... | 7,450 | 3,008 | -- | -- |
| Tomato Sauce, Canned ..... | -- | -- | 9,158 | 2,353 |
| Tomatoes, Crushed ..... | 7,773 | 2,200 | 8,815 | 2,667 |
| Tomatoes, Fresh ..... | -- | -- | 1,480 | 589 |
| Tomatoes, Paste ..... | 4,200 | 1,565 | 5,705 | 2,116 |
| Tomatoes, Whole ..... | 5,728 | 1,754 | 6,499 | 2,148 |
| Tuna, Canned ..... | 5,746 | 6,684 | 5,337 | 5,743 |
| Turkey, Burgers, Frozen .. | 1,547 | 1,594 | 1,872 | 1,810 |
| Turkey, Chilled ..... | -- | -- | 7,740 | 4,516 |
| Turkey, Frozen, Ground ... | 8,230 | 5,994 | 8,964 | 5,394 |
| Turkey, Roast ..... | 12,694 | 16,723 | 22,193 | 30,491 |
| Turkey, Whole, Frozen .... | 42,300 | 24,868 | -- | -- |
| Undistributed ..... | -- | 32 | -- | 23 |
| Total ..... | 741,162 | 501,980 | 696,455 | 463,313 |

Federal Food Specifications:

AMS also develops, coordinates, and approves Federal food product descriptions and establishes quality assurance policies and procedures for the procurement of food by USDA, the Department of Defense, Indian Health Service, National Institutes of Health, Bureau of Prisons, and the Department of Veterans Affairs. The major goal of this program is to update and streamline Federal food specifications to improve the cost efficiency of Federal food purchasing by using Commercial Item Descriptions whenever possible.

Federal Food Specification Workload Data:

| | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|
| Commercial Item Descriptions (CID's) developed, coordinated and approved..... | 4 | 3 | 3 |
| CID's revised..... | 15 | 16 | 16 |
| Federal Specifications approved... | 0 | 1 | 0 |
| Documents canceled..... | 5 | 4 | 4 |
| Department of Defense food documents coordinated..... | 49 | 45 | 45 |
| Food product description reviewed..... | 69 | 50 | 50 |
| Federal specifications amended.... | 2 | 2 | 2 |

Marketing Agreements and Orders:

The marketing agreements and orders program is authorized by the Agricultural Marketing Agreement Act of 1937. Section 32 funds authorized under 7 U.S.C. 1392b are used by the Department for administering marketing agreement and order programs at the national level and for public hearings and referenda to determine producer sentiment concerning new programs and proposed revisions of marketing orders already in effect. Administration at the local level is financed through handler assessments.

Marketing orders are designed to stabilize market conditions and to improve the returns for fluid milk and fruit and vegetable producers. Stabilized market conditions are accomplished by: (1) establishing minimum prices which handlers pay to dairy producers; and (2) regulating the quality and quantity of fruits and vegetables sold in commercial channels.

The orders are requested by producers and handlers. Evaluations and hearings on proposed marketing orders are conducted by AMS. Proposed orders are subject to approval by producers of the regulated commodity. Once approved, the Secretary issues the marketing order and sets the effective date of the order.

Marketing Agreements and Orders Workload Data:

| | Fluid Milk Orders | | | Fruit, Vegetable and Specialty Crop Orders | | |
|---|---|---|---|---|---|---|
| | 1993 Actual | 1994 Estimate | 1995 Estimate | 1993 Actual | 1994 Estimate | 1995 Estimate |
| Agreement and order programs in effect..... | 38 | 38 | 34 | 41 | 41 | 43 |
| Requests received for new programs..... | 0 | 0 | 0 | 2 | 1 | 1 |
| Hearings and Petitions: | | | | | | |
| Hearings held to consider amendments to existing orders or the issuance of orders in new areas..... | 4 | 7 | 6 | 2 | 5 | 3 |
| Amendments issued..... | 6 | 6 | 5 | 0 | 0 | 3 |
| Suspensions and temporary revisions issued..... | 19 | 17 | 14 | 2 | 5 | 2 |

| | Fluid Milk Orders | | | Fruit, Vegetable and Specialty Crop Orders | | |
|---|---|---|---|---|---|---|
| | 1993 Actual | 1994 Estimate | 1995 Estimate | 1993 Actual | 1994 Estimate | 1995 Estimate |
| Petitions received for review of orders | 7 | 8 | 6 | 0 | 0 | 0 |
| Petitions disposed of during the year | 6 | 7 | 5 | 0 | 0 | 0 |
| Administrator's decisions issued | 2 | 7 | 6 | 0 | 7 | 3 |
| Secretary's decisions issued | 5 | 7 | 5 | 0 | 2 | 5 |
| Secretary's referendum orders issued | 6 | 3 | 3 | 0 | 1 | 6 |
| Termination orders issued | 4 | 2 | 2 | 0 | 0 | 0 |
| Order Operation and Enforcement: | | | | | | |
| Regulatory orders issued | N/A | N/A | N/A | 0 | 0 | 0 |
| Investigation of alleged violations | 4 | 8 | 8 | 101 | 140 | 135 |
| Cases referred to the Department of Justice for prosecution | 5 | 7 | 7 | 24 | 36 | 54 |
| Court cases resolved | 1 | 8 | 6 | 1 | 30 | 18 |
| 15A Petitions received for review | 2 | 4 | 4 | 5 | 7 | 7 |
| 15A Petitions disposed of during the year | 1 | 3 | 3 | 10 | 12 | 12 |
| Freedom of Information requests | 24 | 20 | 20 | 24 | 45 | 45 |
| Order Management: | | | | | | |
| Appointment of an administrative committee | N/A | N/A | N/A | 58 | 58 | 60 |
| Promulgation of committee rule-making | N/A | N/A | N/A | 201 | 240 | 240 |
| Budgets approved | 14 | 14 | 14 | 47 | 43 | 45 |
| Committee/Subcommittee meetings attended | N/A | N/A | N/A | 375 | 400 | 400 |
| Nomination meetings attended | N/A | N/A | N/A | 80 | 80 | 84 |
| Million tons regulated | 53.1 | 53.8 | 55.0 | N/A | N/A | N/A |
| Percent Grade A marketed | 77 | 80 | 80 | N/A | N/A | N/A |
| Value of marketings (million $) | 13,759 | 13,060 | 13,287 | N/A | N/A | N/A |
| Total number of markets | 38 | 38 | 34 | N/A | N/A | N/A |
| Value of producer deliveries (Million $) | 13,759 | 13,060 | 13,287 | N/A | N/A | N/A |
| Cooperative Qualifications: | | | | | | |
| Cooperatives qualified | 170 | 175 | 175 | N/A | N/A | N/A |
| Cooperative qualifications terminated | 1 | 4 | 4 | N/A | N/A | N/A |
| Cooperative annual reports reviewed | 170 | 175 | 175 | N/A | N/A | N/A |

JUSTIFICATION OF INCREASES AND DECREASES
Section 32

(1) A decrease of $13,000,000 for emergency surplus removal purchases. The budget customarily does not anticipate this need in the budget year.

(2) A decrease of $50,000,000 for the purchase of sunflowerseed oil and cottonseed oil. These activities will be continued through initiatives for sales of vegetable oils under the export enhancement program.

(3) A net increase of $48,000 in administrative expenses consisting of:

(a) an increase of $95,000 for the anticipated January 1995 pay raise of 1.6%.

This increase includes $22,000 for the commodity purchase services program and $73,000 for the marketing agreements and orders program.

(b) an increase of $201,000 which reflects a 2.6% increase in non-salary costs.

This increase includes $104,000 for the commodity purchase services program and $97,000 for the marketing agreements and orders program.

(c) a decrease of $31,000 for a reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, AMS will eliminate 1 staff year by the end of FY 1995. In addition, AMS will be working with the other Marketing and Inspection Service Agencies to evaluate whether additional offices could be closed, consolidated or collocated.

(d) a decrease of $217,000 for administrative efficiency.

Need for Change. The Secretary's plan to streamline the administrative functions in the Marketing and Inspection Service agencies includes consolidating these functions into four centers of excellence beginning in 1994.

Nature of Change. In order to achieve these administrative savings, AMS will be responsible for increasing the efficiency of providing the information resources and financial management functions. FSIS will be responsible for increasing the efficiency of providing the personnel functions. And, APHIS will be responsible for increasing the efficiency of providing the administrative functions. These efficiencies will reduce the cost of recruitment, travel, supplies, printing and reproduction, utilities, automation, program cost accounting, training, rent, and cooperative agreements.

Agricultural Marketing Service
Section 32 Administrative Funds
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 AND ESTIMATED 1994 AND 1995

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| California ..... | $777,885 | 9 | $838,000 | 10 | $843,000 | 10 |
| District of Columbia | 13,002,139 | 147 | 14,673,000 | 151 | 14,710,000 | 150 |
| Florida ..... | 259,518 | 3 | 280,000 | 3 | 281,000 | 3 |
| Illinois ..... | 109,109 | 1 | 117,000 | 1 | 118,000 | 1 |
| Oregon ..... | 382,837 | 4 | 412,000 | 4 | 415,000 | 4 |
| Texas ..... | 97,310 | 1 | 105,000 | 1 | 106,000 | 1 |
| Total, Available or Estimate ..... | 14,628,798 | 165 | 16,425,000 | 170 | 16,473,000 | 169 |

# SECTION 32

## STATUS OF PROGRAM

Current Activities:

AMS directs the purchase of particular commodities in order to help stabilize market conditions. The commodities acquired are furnished to the Food and Nutrition Service (FNS) to meet the needs of the National School Lunch Program and other domestic feeding programs. Purchases are coordinated with FNS to assure that the quantity, quality, and variety of commodities purchased are desired by schools and institutions participating in food assistance programs and can be used to assist individuals in meeting the Dietary Guidelines for Americans. The Agricultural Stabilization and Conservation Service (ASCS) administers the payments to vendors to whom contracts have been awarded, ensures the proper storage of commodities purchased when needed, and assists in their distribution.

The administrative costs for food buying operations and coordination with FNS and ASCS are paid from the Commodity Purchase Services activity in the Section 32 program. Section 32 funds are also used for the administration of marketing agreements and orders which are used to establish orderly marketing conditions for certain commodities.

AMS also maintains a government-wide food specification program to reduce government food purchase costs by standardizing contract specifications.

Selected Examples of Recent Progress:

1. Commodity Purchases:

In FY 1993, AMS used Section 32 funds to purchase over $463 million worth of commodities. This amounted to over 696 million pounds of commodities which were distributed through the nutrition programs of FNS. Of this amount, over 557 million pounds of the commodities purchased were used to fulfill the National School Lunch Program's commodity subsidy of 14 cents per meal for the school year ending June 30, 1993. The remaining 139 million pounds were used for the purpose of emergency surplus removal through donation to schools and other institutions. AMS also purchased over $270 million (representing almost 469 million pounds) of commodities using funds appropriated to FNS.

To meet the increased emphasis in lowering fat in products provided for the National School Lunch Program, AMS has purchased ground turkey, frozen diced chicken, and chicken patties, as well as reduced the fat content of frozen ground beef and pork products to approximately 18-20 percent. AMS is also purchasing beef patties with only 10 percent fat. Schools have the option of ordering not only the type of beef (bulk or patties), but also lean beef, or the new low-fat patties. AMS continued the requirement that shipments of certain frozen and canned products be delivered on pallets for school year 1992-93. This program has greatly improved the efficiency of delivering such products and helped recipient agencies.

During FY 1993, approximately $10 million of Section 32 funds were used to purchase canned pink salmon, and over $5.7 million were used to purchase canned tuna.

Commodities purchased in FY 1993 that were not purchased in the previous year included cooked frozen pork rib-shaped patties and frozen ground beef packed in 1-pound chubs. The frozen ground beef packed in 1-pound chubs was a pilot program to provide frozen foods to Indian reservations. The frozen pork rib-shaped patties were purchased as a test item to include in the State Option Contract program. Other commodities purchased in FY 1993 included chicken

patties, large broiler chickens for processing, frozen blueberries, frozen cherries, frozen orange juice, fresh grapefruit, fresh oranges, fresh potatoes, fresh tomatoes, and canned salsa.

After a successful pilot program last year, AMS has expanded the use of State Option Contracts (SOC) for the purchase of desirable high-value items such as breaded chicken nuggets and patties. Under SOC, USDA buys a processed food and the States reimburse USDA for the portion of the paying price that represents processing costs. In this manner, USDA is able to provide desirable processed food items at about the same commodity cost as more basic food items, which allows removal of the same quantity from the marketplace within a given budget.

A diversion program for the 1992 crop of round white potatoes ran for a period of 45 days during the late spring and early summer of 1993. The Secretary authorized the use of up to $9 million in Section 32 funds for payments to producers who diverted domestically grown potatoes from traditional market channels. The potatoes purchased had to meet minimum grade standards and had to be used for one or more of the following purposes: donation to charitable institutions for human consumption, use as livestock feed, or composted according to procedures developed by the Soil Conservation Service. Producers wishing to participate in the program filed applications through their local office of the Agricultural Stabilization and Conservation Service. Each state was allocated funds based on that state's percentage of the total volume of potatoes being diverted. In total, 204.2 million pounds of potatoes were diverted at a cost of $8.6 million.

During FY 1993, over $4.6 million were used to provide disaster relief for Midwest flood victims. Assistance was given under Section 413(b) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5180(b)).

2. Food Quality Assurance Program:

During FY 1993, four Commercial Item Descriptions (CID's) were developed, coordinated, and approved; and 13 CID's were revised. In addition, 52 approved food product description documents were reviewed to determine the impact of changes made in the specifications on certification activities. Also, in FY 1993, 34 Department of Defense food documents were coordinated, three food product descriptions were canceled, and one Federal specification was amended.

3. Marketing Agreements and Orders:

a. Dairy:

Milk marketing orders establish orderly marketing conditions for the sale of milk by dairy farmers to handlers. This program sets minimum prices which handlers must pay for milk at levels that reflect supply and demand conditions in the markets and assure consumers of an adequate supply of pure and wholesome milk. More than 106 billion pounds of milk valued at $13.8 billion (minimum price basis adjusted for butterfat content) were delivered to plants in 38 market areas in FY 1993. This production represented an estimated 77 percent of all Grade A milk marketed by U.S. dairy farmers.

In FY 1993, AMS collected and transferred to ASCS approximately $207 million in dairy producer assessments pursuant to the Agricultural Act of 1949. A mandatory assessment at a minimum of 11.25 cents per hundredweight of milk produced in the 48 continental states reduced the price received by producers for milk marketed commercially. AMS is also

responsible for verifying by audit the proper payment of the assessments mandated by law and verifying the individual producer refund information.

In FY 1993, major order actions included the issuance of an order amending all 38 milk orders to provide for uniform classification provisions and uniform treatment of reconstituted milk. Order amendments for three orders implemented a multiple component pricing plan and a recommended decision implemented similar pricing plans in two additional orders. A final decision established a special Class III-A use and price for milk used to produce nonfat dry milk for 27 orders.

b. Fruits and Vegetables:

Order Amendments or Promulgations

Winter Pears

In December 1992, in Portland, Oregon, a public hearing was conducted to consider amending Marketing Agreement and Order No. 927 for winter pears grown in the States of Oregon, Washington, and California. The proposed amendments, submitted by the Winter Pear Control Committee, would authorize the following activities, now applicable only to interstate shipments, to be conducted with respect to intrastate shipments: (1) collect mandatory assessments; (2) collect statistical information; (3) regulate quantity and quality standards; and (4) require inspection and certification of such pears. In addition, a proposal would allow the Winter Pear Control Committee to accept voluntary contributions. The Department is reviewing the hearing record.

Idaho-Oregon Potatoes

A public hearing was held September 8, 1993, in Idaho Falls, Idaho, to consider amending Marketing Agreement and Order No. 945 for potatoes grown in designated counties in Idaho and Malheur County, Oregon. The purpose of the hearing was to receive evidence on proposals to amend provisions of the order concerning: 1) authorizing regulation of intrastate potato shipments; 2) providing for representation of seed producers on the Idaho-Eastern Oregon Potato Committee (committee); 3)providing committee authority to recommend changes in committee size and committee composition; 4) changing committee quorum requirements; 5) providing committee authority to recommend changes in the rate of assessment, impose a late payment or interest rate charge, or both, on late assessment payments, accept advanced assessment payments, and borrow monies for program administration; 6) providing committee authority to recommend container labeling; 7) providing confidentiality requirements for reports submitted to the committee; and 8) providing for a verification of reports requirement. The Department is reviewing the hearing record.

Walla Walla Onions

Industry representatives submitted a tentative marketing order for Walla Walla onions on April 2, 1993. The pre-notice press release was issued on August 9, with comments due September 9. The hearing was held on November 15 in Walla Walla, Washington. The Department is reviewing the hearing record.

California Almonds

The Almond Board of California submitted proposed amendments(on a wide variety of administrative and regulatory issues) to the marketing order on June 19,1992. The Board submitted additional materials and proposals on October 23, 1992, and January 7, 1993. The pre-notice press release was

issued on January 4, 1993, and comments and proposals were requested by February 5. A public hearing was held November 3-5. Currently, the Department is reviewing the hearing record.

California/Arizona Navel and Valencia Oranges

On June 16, the Secretary announced that the Department would seek amendment of the orders. The pre-notice press release requesting proposals was issued August 31, with a request for proposals by November 1. The due date was extended to January 1, 1994, at the request of both administrative committees. Subsequently, the committees requested that there be a recess from amendatory proceedings. To date, the Department has not acted on the requests.

Tart Cherries

The Cherry Marketing Institute (CMI) submitted a proposed marketing order for tart cherries grown in the States of Michigan, New York, Pennsylvania, Oregon, Utah, Washington and Wisconsin, and a request for a hearing, on August 16, 1993. Public hearings to consider a proposed marketing agreement and order are being held in: Grand Rapids, Michigan (December 15-17); Rochester, New York (January 10, 1994); Provo, Utah (January 13, 1994); and Portland, Oregon (February 14). The proposed program would authorize volume regulation, grade, size, maturity, pack and container regulations including mandatory inspection. The proposed order would also authorize production, processing and marketing research and promotion projects.

# FEDERAL GRAIN INSPECTION SERVICE

## Purpose Statement

The Federal Grain Inspection Service (FGIS) was established on November 20, 1976, pursuant to the U.S. Grain Standards Act (USGSA), as amended (Public Law 94-582). In 1977, it was amended to provide appropriated funding for field supervision. The Omnibus Budget Reconciliation Act of 1981 amended the USGSA to require user fee funding to support supervision and administration of the inspection and weighing programs previously covered by appropriations. Authority to collect user fees for supervision and administration activities and authority to invest retained earnings in interest-bearing accounts has been extended through September 2000.

The 1981 amendments also established an FGIS Advisory Committee to provide advice to the Administrator of FGIS on the implementation of the USGSA. Programs supporting the Grain Quality Improvement Act (GQIA) of 1986 continue. The Grain Quality Title of the Food, Agriculture, Conservation and Trade Act of 1990 supports continued expansion in this area.

The U.S. Grain Standards Act Amendments of 1993, signed into law on November 24, 1993, extends operations and authorizes appropriations for FGIS, provides increased flexibility, and enables FGIS to perform fee-based testing of commercial inspection and weighing equipment.

Inspection and weighing programs are also carried out under the authority of the Agricultural Marketing Act of 1946 (AMA), as amended. Programs under the AMA include the inspection and grading of rice, dry beans, lentils, dry peas, processed grain products, hops, and related commodities.

The mission of FGIS is to facilitate the marketing of grain, oilseeds, pulses, rice, and related commodities by: (a) establishing descriptive standards and terms, (b) accurately and consistently certifying quality, (c) providing for uniform official inspection and weighing, (d) carrying out assigned regulatory and service responsibilities, and (e) providing the framework for commodity quality improvement incentives to both domestic and foreign buyers. Through these permissive and mandatory programs, FGIS assists in advancing the orderly and efficient marketing and effective distribution of U.S. grain and other assigned commodities from the Nation's farms to domestic and foreign buyers. FGIS, acting as an impartial third party, assures that the standards are applied and the weights are recorded in a fair and accurate manner, thereby facilitating domestic and foreign grain grading. Activities of the Agency are as follows:

1. Standardization and Quality Control Activities: Functions include developing, establishing, and maintaining uniform official grain and commodity standards. Developing and maintaining an agency-wide quality control, quality assurance, and related testing and training are included in this program area.

2. Compliance Activities: Activities ensure that the Agency operates in conformance with all requirements and procedures established by statute, regulation, instruction, or directive. The program ensures, through reviews, evaluations, and enforcement, if necessary, that the USGSA, and applicable provisions of the AMA, and regulations, procedures, and policies issued thereunder are implemented accurately and effectively. The international monitoring program which responds to complaints regarding quality and/or quantity of grain shipments abroad is also included in this program area.

3. Methods Development: Functions include applied research or tests that produce new or improved techniques for measuring grain quality. Examples include new knowledge gained through study of how certain variables such as particle size of ground material affects the variability of analyses and the comparison of different techniques for measuring sprout damage. The development of a new wheat classification system or evaluating prototype wheat hardness meters, and

better measurement techniques for pesticides, mycotoxins, and grain odor are included in this program area.

4. Inspection and Weighing Activities: The USGSA requires: (1) mandatory inspection and weighing services at export ports by FGIS or delegated State agency personnel; and (2) permissive inspection and weighing services at domestic locations by designated State and private agency personnel. The USGSA also requires FGIS to supervise all official inspection and weighing activities. Further, on a request basis, FGIS personnel perform inspection of rice and related commodities under the AMA and provide nationwide appeal inspection services.

The FGIS headquarters is located in Washington, D.C., and Kansas City, Missouri, with field activities located in 21 field offices, 2 Federal/State offices, and 9 suboffices in 20 States and Canada. As of September 30, 1993, FGIS employment totaled 646 full-time permanent employees and 104 part-time temporary and intermittent employees. Of the total, 146 full-time employees were located at headquarters while the remaining 500 full-time employees and 104 part-time and intermittent employees were assigned to field locations. The costs of nearly all field services and most headquarters activities are financed from fees charged for services performed. User-fee supported activities accounted for 74 percent of total agency spending in FY 1993. Compliance and standardization activities, international monitoring, and the FGIS Advisory Committee are financed from appropriations.

FEDERAL GRAIN INSPECTION SERVICE

Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Salaries and Expenses | $11,397,000 | 161 | $11,532,000 | 168 | $11,325,000 | 168 |
| Inspection and Weighing Services | 30,884,866 | 537 | 42,784,000 | 532 | 42,784,000 | 532 |
| Total, Federal Grain Inspection Service | 42,281,866 | 698 | 54,316,000 | 700 | 54,109,000 | 700 |

FEDERAL GRAIN INSPECTION SERVICE

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | 1993 | | | 1994 | | | 1995 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Head-quarter | Field | Total | Head-quarter | Field | Total | Head-quarter | Field | Total |
| Executive Level V | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| ES-6 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| ES-5 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| ES-1 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| GS/GM-15 | 4 | -- | 4 | 4 | -- | 4 | 3 | -- | 3 |
| GS/GM-14 | 12 | -- | 12 | 10 | -- | 10 | 8 | -- | 8 |
| GS/GM-13 | 30 | 11 | 41 | 29 | 11 | 40 | 28 | 11 | 39 |
| GS-12 | 25 | 18 | 43 | 25 | 18 | 43 | 25 | 18 | 43 |
| GS-11 | 9 | 85 | 94 | 9 | 85 | 94 | 9 | 85 | 94 |
| GS-10 | -- | 25 | 25 | -- | 25 | 25 | -- | 25 | 25 |
| GS-9 | 20 | 209 | 229 | 20 | 209 | 229 | 20 | 209 | 229 |
| GS-8 | 3 | -- | 3 | 3 | -- | 3 | 3 | -- | 3 |
| GS-7 | 20 | 17 | 37 | 20 | 17 | 37 | 20 | 17 | 37 |
| GS-6 | 21 | 12 | 33 | 21 | 12 | 33 | 21 | 12 | 33 |
| GS-5 | 11 | 131 | 142 | 11 | 131 | 142 | 11 | 131 | 142 |
| GS-4 | 4 | 44 | 48 | 4 | 44 | 48 | 4 | 44 | 48 |
| GS-3 | -- | 7 | 7 | -- | 7 | 7 | -- | 7 | 7 |
| GS-2 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 | 1 |
| GS-1 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ungraded Positions..... | 10 | -- | 10 | 10 | -- | 10 | 10 | -- | 10 |
| Total Permanent Positions ..... | 173 | 560 | 733 | 170 | 560 | 730 | 166 | 560 | 726 |
| Unfilled Positions end-of-year ..... | -2 | -52 | -54 | -2 | -52 | -54 | -2 | -52 | -54 |
| Total, Permanent Employment, end-of-year. | 171 | 508 | 679 | 168 | 508 | 676 | 164 | 508 | 672 |
| Staff-Years: Ceiling ..... | 158 | 540 | 698 | 160 | 540 | 700 | 160 | 540 | 700 |

FEDERAL GRAIN INSPECTION SERVICE

Salaries and Expenses

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| Personnel Compensation: | | | |
| Headquarters | $ 4,238,660 | $ 4,754,000 | $ 4,667,000 |
| Field | 1,958,813 | 2,197,000 | 2,157,000 |
| 11 Total personnel compensation | 6,197,473 | 6,951,000 | 6,824,000 |
| 12 Personnel benefits | 1,347,778 | 1,329,000 | 1,307,000 |
| Total Personnel Compensation Benefits | 7,545,251 | 8,280,000 | 8,131,000 |
| Other Objects: | | | |
| 21 Travel | 477,663 | 497,000 | 450,000 |
| 22 Transportation of things | 73,271 | 48,000 | 48,000 |
| 23.2 Rental payments to others | 23,142 | 52,000 | 50,000 |
| 23.3 Communications, utilities, and misc. charges | 286,348 | 333,000 | 329,000 |
| 24 Printing and reproduction | 38,665 | 28,000 | 28,000 |
| 25 Other services | 1,199,365 | 1,626,000 | 1,624,000 |
| 26 Supplies and materials | 331,598 | 267,000 | 266,000 |
| 31 Equipment | 731,378 | 401,000 | 399,000 |
| Total other objects | 3,161,430 | 3,252,000 | 3,194,000 |
| Total direct obligations | 10,706,681 | 11,532,000 | 11,325,000 |
| Position Data: | | | |
| Average Salary, ES positions | $105,300 | $110,000 | $114,000 |
| Average Salary, GM/GS positions | $ 35,893 | $ 37,314 | $ 38,650 |
| Average Grade, GM/GS positions | 11.3 | 11.3 | 11.3 |

## FEDERAL GRAIN INSPECTION SERVICE

(New language is underscored; deleted matter is enclosed in brackets.)

Salaries and Expenses

For necessary expenses to carry out the provisions of the United States Grain Standards Act, as amended, and the standardization activities related to grain under the Agricultural Marketing Act of 1946, as amended, including field employment pursuant to section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed $20,000 for employment under 5 U.S.C. 3109, [$11,532,000] $11,325,000: Provided, That this appropriation shall be available pursuant to law (7 U.S.C. 2250) for the alteration and repair of buildings and improvements, but, unless otherwise provided, the cost of altering any one building during the fiscal year shall not exceed 10 per centum of the current replacement value of the building: Provided further, That none of the funds provided by this Act may be used to pay the salaries of any person or persons who require, or who authorize payments from fee-supported funds to any person or persons who require nonexport, nonterminal interior elevators to maintain records not involving official inspection or official weighing in the United States under Public Law 94-582 other than those necessary to fulfill the purposes of such Act.

# FEDERAL GRAIN INSPECTION SERVICE

## SALARIES AND EXPENSES - CURRENT LAW

| | |
|---|---|
| Appropriations Act, 1994 | $11,532,000 |
| Budget Estimate, 1995 | 11,325,000 |
| Decrease in Estimate | - 207,000 |

## SALARIES AND EXPENSES - PROPOSED LEGISLATION

| | |
|---|---|
| Budget Estimate, Current Law, 1995 | $11,325,000 |
| Change due to Proposed Legislation (New User Fees) | -5,021,000 |
| Net Request, President's 1995 Budget Request | 6,304,000 |

## SUMMARY OF INCREASES AND DECREASES - CURRENT LAW
(On basis of appropriation )

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Compliance Activities | $ 4,672,000 | +$21,000 | -$180,000 | $ 4,513,000 |
| Methods Development | 1,791,000 | -- | -- | 1,791,000 |
| Standardization Activities. | 5,069,000 | + 66,000 | -114,000 | 5,021,000 |
| Total Available | 11,532,000 | +87,000 | -294,000 | 11,325,000 |

## PROJECT STATEMENT - CURRENT LAW
(On basis of appropriation )

| Project | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Compliance Activities | $ 4,357,316 | 78 | $ 4,672,000 | 78 | -$ 159,000 (1) | $ 4,513,000 | 78 |
| Methods Development | 1,772,963 | 23 | 1,791,000 | 23 | -- | 1,791,000 | 23 |
| Standardization Activities | 4,576,402 | 60 | 5,069,000 | 67 | -48,000 (2) | 5,021,000 | 67 |
| Unobligated balance | 690,319 | -- | -- | -- | -- | -- | -- |
| Total, Available or Estimate | 11,397,000 | 161 | 11,532,000 | 168 | -207,000 | 11,325,000 | 168 |

## EXPLANATION OF PROGRAM

The appropriation "Salaries and Expenses" of the Federal Grain Inspection Service funds the compliance and standardization activities and methods development. The activities carried out are as follows:

### 1. Compliance Activities

The compliance activities ensure the accurate and uniform application of the U.S. Grain Standards Act (USGSA) and the applicable provisions of the Agricultural Marketing Act of 1946 (AMA). Field activities are reviewed to ensure that all procedures are implemented in a manner consistent with agency policy. Compliance activities include the delegation and designation of official agencies, the investigation of violations of the USGSA and AMA including referral of criminal violations to the Office of Inspector General, licensing of official agency personnel, registering persons/firms engaged in foreign commerce, and maintaining an international monitoring program which interacts with foreign governments and trade teams to exchange information and respond to complaints concerning quality and quantity of grain shipments.

Compliance Activities
Projected Level of Activity

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| Official Agency Actions: | | | |
| Agency delegations and designations in effect at end of fiscal year | 72 | 72 | 72 |
| Designations renewed | 21 | 26 | 25 |
| Designations cancelled | 0 | 1 | 1 |
| State delegations at export port locations in effect at end of fiscal year | 8 | 8 | 8 |
| Registration of Firms Exporting Grain: | | | |
| Registration certificates issued | 92 | 95 | 95 |
| On-site investigations | 6 | 10 | 15 |

### 2. Standardization Activities

FGIS standardization activities aid in the orderly marketing of grains, oilseeds, rice, and related commodities through the development, promulgation, and application of new and revised standards. Activities include the establishment, review, and revision of the standards to reflect the latest inspection techniques and marketing needs; development and evaluation of new instruments and methods to increase accuracy; and operation of a nationwide quality control program to assure the integrity of the inspection certificate.

Standardization Activities
Projected Level of Activity

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| U.S. Standards in effect at end of year | 19 | 19 | 19 |
| New and revised standards issued during fiscal year | 2 | 4 | 7 |
| Standards reviews in progress | 11 | 12 | 7 |
| Standards reviews completed | 5 | 7 | 7 |
| Inspection techniques developed | 2 | 2 | 2 |
| Codex standards developed | 13 | 13 | 13 |

Under the Secretary's proposed reorganization, functions of the Federal Grain Inspection service will be transferred to the Grain Inspection, Packers and Stockyards Administration.

JUSTIFICATION OF INCREASES AND DECREASES

(1) A decrease of $159,000 in compliance activities ($4,672,000 available in 1994) consisting of:

(a) An increase of $21,000 which reflects a 1.6 percent increase in pay costs.

(b) An increase of $17,000 which reflects a 2.6 percent increase in non-salary costs.

(c) A decrease of $41,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $41,000.

Nature of Change. In order to achieve these savings, FGIS will reduce discretionary expenses by $41,000 in FY 1995, in areas such as employee development, travel, and equipment.

(d) A decrease of $156,000 for a reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, FGIS has reduced employment in FY 1994 which will reduce FY 1995 employment costs by $156,000.

(2) A decrease of $48,000 in standardization activities ($5,069,000 available in 1994) consisting of:

(a) An increase of $66,000 which reflects a 1.6 percent increase in pay costs.

(b) An increase of $72,000 which reflects a 2.6 percent increase in non-salary costs.

(c) A decrease of $60,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $60,000.

Nature of Change. In order to achieve these savings, FGIS will reduce discretionary expenses by $60,000 in FY 1995, in areas such as employee development, travel, and equipment.

(d) A decrease of $126,000 for a reduction in Federal employment costs.

Need for Change. The Secretary has developed a plan to streamline the department in support of the President's Executive Order mandating a reduction of Federal employees.

Nature of Change. To achieve the reduction target, FGIS has reduced employment in FY 1994 which will reduce FY 1995 employment costs by $126,000.

FEDERAL GRAIN INSPECTION SERVICE
Summary of Proposed Legislation

SUMMARY OF INCREASES AND DECREASES - PROPOSED LEGISLATION

| Item of Change | 1995 Current Law | 1995 Program Changes | 1995 President's Request |
|---|---|---|---|
| Compliance Activities | $ 4,513,000 | -- | $ 4,513,000 |
| Methods Development | 1,791,000 | -- | 1,791,000 |
| Standardization Activities | 5,021,000 | -$5,021,000 | -- |
| Total Available | 11,325,000 | -5,021,000 | 6,304,000 |

Explanation of Proposed Legislation

The Federal Grain Inspection Service develops, reviews, and maintains official U.S. grain standards used by the entire grain industry. This proposal would initiate user fees for this service. The Administration believes that the beneficiaries of these services should pay for the costs of these services.

Federal Grain Inspection Service
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 and Estimated 1994 and 1995
SALARIES AND EXPENSES

| | FY 1993 | | FY 1994 | | FY 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Arkansas | 112,501 | 2 | 121,000 | 2 | 119,000 | 2 |
| California | 79,126 | 1 | 85,000 | 1 | 84,000 | 1 |
| District of Columbia | 2,992,023 | 48 | 3,224,000 | 50 | 3,165,000 | 50 |
| Georgia | 29,681 | 1 | 32,000 | 1 | 31,000 | 1 |
| Idaho | 80,904 | 1 | 87,000 | 1 | 86,000 | 1 |
| Illinois | 295,590 | 4 | 366,000 | 4 | 360,000 | 4 |
| Indiana | 44,643 | 1 | 0 | 0 | 0 | 0 |
| Iowa | 209,618 | 3 | 226,000 | 3 | 222,000 | 3 |
| Kansas | 295,129 | 4 | 318,000 | 4 | 312,000 | 4 |
| Louisiana | 363,247 | 5 | 391,000 | 5 | 384,000 | 5 |
| Maryland | 101,299 | 2 | 109,000 | 2 | 107,000 | 2 |
| Minnesota | 299,093 | 4 | 322,000 | 4 | 316,000 | 4 |
| Missouri | 4,897,403 | 72 | 5,275,000 | 78 | 5,180,000 | 78 |
| Nebraska | 168,196 | 3 | 181,000 | 3 | 178,000 | 3 |
| North Dakota | 150,797 | 2 | 162,000 | 2 | 160,000 | 2 |
| Ohio | 80,350 | 1 | 87,000 | 1 | 85,000 | 1 |
| Oregon | 99,363 | 1 | 107,000 | 1 | 105,000 | 1 |
| Texas | 297,813 | 4 | 321,000 | 4 | 315,000 | 4 |
| Washington | 109,905 | 2 | 118,000 | 2 | 116,000 | 2 |
| Subtotal, Available or Estimate | 10,706,681 | 161 | 11,532,000 | 168 | 11,325,000 | 168 |
| Unobligated Balance | 690,319 | 7 | -- | -- | -- | -- |
| Total, Available or Estimate | 11,397,000 | 168 | 11,532,000 | 168 | 11,325,000 | 168 |

# FEDERAL GRAIN INSPECTION SERVICE

## SALARIES AND EXPENSES

## STATUS OF PROGRAM

Current activities, progress, and programs for standardization, quality assurance, and compliance activities are outlined below:

### STANDARDIZATION AND QUALITY ASSURANCE ACTIVITIES

Current Activities: The Federal Grain Inspection Service (FGIS) compiles data for developing new and updating existing grading standards, and evaluates new methodology and equipment for determining grain classification and quality. The Agency provides reference standards for official grading procedures.

Selected Examples of Recent Progress:

1. Standardization. (Grain; Rice; and Beans, Peas, and Lentils)

   Grain. FGIS implemented revised standards for wheat on May 1, 1993, and for sorghum on June 1, 1993. Development of these new standards was based on the evaluation of 28 comments received on the wheat standards proposal and 29 comments received on the sorghum standards proposal.

   FGIS is continuing its review of the barley standards. FGIS solicited input from the barley industry on a discussion paper developed by the Agency, and at a meeting hosted by the Washington Barley Commission in Pasco, WA, in May 1993. A proposed rule soliciting comments and a final rule are expected during fiscal year 1994.

   FGIS also initiated discussions regarding a review of standards for corn, sunflower seed, flaxseed, oats, rye, triticale, and mixed grain. FGIS plans to propose action on these grains and oilseeds during fiscal year 1994.

   Rice. In the January 11, 1993, Federal Register, FGIS proposed revising the U.S. Standards for Rice. Specifically, FGIS proposed to revise the U.S. Standards for Rough Rice, Brown Rice for Processing, and Milled Rice by establishing a special grade for aromatic rice, and eliminating the requirement that Rough rice and Brown rice for processing must contain more than 25 percent of whole kernels in order to be classed as long grain, medium grain, short grain, or mixed Rough rice or Brown rice for processing. Based on the 14 comments received in response to the proposed action, FGIS prepared a final rule to implement the changes to the rice standards. The final rule is scheduled to be published in the Federal Register during fiscal year 1994.

   Beans. On March 16, 1993, FGIS published in the Federal Register a notice that the U.S. Standards for Beans were under review. FGIS believed that these standards met the needs of producers, warehouse managers, shippers, and all others who handle or market beans. Consequently, no changes were planned or proposed. Interested parties were invited to participate in the rulemaking process by submitting written comments and/or recommendations on the official standards. During the 60-day comment period, two comments were received. Based on these comments, FGIS developed an "Advance Notice of Proposed Rulemaking" that seeks comments on recommended changes by the commenters to the U.S. Standards for Blackeye and Baby Lima Beans.

2. Standardizing Commercial Grain Inspection Equipment. FGIS continued to provide leadership in a cooperative effort with the National Conference on Weights and Measures (NCWM) to develop equipment testing and calibration programs for grain moisture meters and near infrared (NIR) wheat protein analyzers. During fiscal year 1993, FGIS provided technical and

administrative support for three meetings of the technical sectors (committees) responsible for developing specifications, tolerances, and test procedures for commercial grain inspection equipment.

The NCWM adopted proposed changes to its Moisture Meters Code at its 1993 annual meeting. FGIS is preparing to serve as a National Type Evaluation Program (NTEP) laboratory to evaluate commercial moisture meters, using the newly revised Code, during fiscal year 1994. FGIS also plans to conduct a calibration data collection program for the moisture meter models that meet the prescribed design requirements and pass the performance tests.

A technical sector prepared a new Code for NIR wheat protein analyzers that will be formatted by the National Institute for Standards and Technology (NIST), discussed at the NCWM interim meetings in January 1994, and possibly adopted at the NCWM annual meeting in July 1994. If the Code is adopted in fiscal year 1994, FGIS will serve as an NTEP laboratory for evaluating and calibrating NIR wheat protein analyzers beginning in fiscal year 1995.

3. Methods Development.

Standardizing Commercial Grain Inspections. FGIS will begin performance evaluation and calibration data collection for commercial grain moisture meters in fiscal year 1994 under the auspices of the National Conference on Weights and Measures. The same activity is expected later concerning Near Infrared protein testing equipment.

The 1990 Farm Bill amended the U.S. Grain Standards Act to authorize the FGIS Administrator to work in conjunction with the National Institute of Standards and Technology and the National Conference on Weights and Measures to promote greater uniformity in commercial grain inspection results.

Heavy Metals Analysis. Concern has been expressed about the possibility of contamination of U.S. grain by heavy metals such as cadmium, lead, mercury, arsenic, and selenium. These metals occur naturally in certain types of soil and can also be introduced by the use of sewage sludge as a fertilizer. It has been shown that some of these metals can be absorbed in the roots of the plant and end up in the grain. The first phase of this project will be the development of a survey program for heavy metals in wheat. The next phases are expected to include the development of survey programs for heavy metals in soybeans and corn. Later phases could include offering a heavy metals testing service for a fee.

Type Evaluation of Mycotoxin Test Kits and Adoption of Reference Methods. The wet weather during the 1993 growing season has emphasized the need for being able to supply FGIS customers with mycotoxin testing capabilities. Work on the testing of new mycotoxin test kits for use in the field will continue. In particular, test kits for deoxynivalenol, zearalenone, and fumonisin will be type evaluated.

Reference methods are needed in order to verify the accuracy of measurements being made by test kits in the field. The goal will be to combine the current reference methods into one or two multi-residue methods which will determine the aflatoxins, deoxynivalenol, zearalenone, and fumonisin. A confirmation technique will also be developed using high-pressure liquid chromatography/mass spectrometry. The result should be an efficient set of methods for quantifying and confirming mycotoxin residues in grain.

Grain Odor. Musty, sour, and commercially-objectionable foreign odors are important grain grading factors. FGIS continues to participate in two separate collaborative efforts with the Agricultural Research Service (ARS) on odor detection in grain.

Approximately 120 samples of various types of grain with different types of

odors were analyzed chemically and specific odor designations were made for each sample based on this chemical analysis. These results are currently being compared with the odor designations assigned to the same samples by inspectors in the official inspection system. This comparison will be completed in fiscal year 1994.

In the second project, an ARS-developed and patented sample holder that prevents inspectors from inhaling particulates, such as dust and mold spores, has been evaluated by the Board of Appeals and Review. Use of this holder did not affect an inspector's ability to detect and identify grain odors. The apparatus is now being tested in the field under actual inspection conditions. In addition, ARS scientists are further evaluating the safety features of the holder. These studies will be completed in fiscal year 1994.

Wheat Classification. FGIS, ARS, the Agricultural Marketing Service (AMS), and the industry-sponsored Wheat Classification Working Group are continuing a collaborative effort to develop a wheat classification system based on objective test results rather than kernel morphology.

In fiscal year 1993, the performance of the single kernel hardness tester that will classify wheat based on measured hardness was successful under different temperature and humidity conditions. As a result, Perten Instruments of North America produced six commercial prototypes and these were tested at the Technical Center and under field conditions at five different locations. The results of this test are currently being analyzed and will be used to fine tune the instrument prior to commercial production.

Insect Infestation. For the past three years, FGIS has supported the development of a test kit which is capable of analyzing total insect infestation in grain. The test that was developed as a result of this effort can detect the presence of insects both internal and external to the grain kernels in all life stages except the egg. Studies which compared the results from this test kit with those obtained using the fragmentation count method were completed and analysis of the results is in process.

In a second project, FGIS and ARS are cooperating in the development of an acoustical detector that can detect the presence of live infestation. This technique is also sensitive to insects that are both internal and external to the kernel. Prototypes are due to be delivered to the FGIS Technical Center in fiscal year 1994 for evaluation.

## COMPLIANCE ACTIVITIES

Current Activities: The compliance program is designed to ensure the accurate and uniform application of the USGSA and applicable provisions of the AMA. The compliance program functions include: (1) evaluating alleged violations, initiating preliminary investigations, and initiating enforcement/administrative action for violations; (2) conducting management and technical reviews of FGIS' operations and initiating appropriate corrective action; (3) administering the program for delegating State agencies and designating State and private agencies performing official functions and monitoring their performance; (4) identifying and, where appropriate, exempting and monitoring official agency and licensee conflicts of interest; (5) licensing personnel of delegated States and designated agencies; (6) registering persons/firms engaged in buying grain for sale in foreign commerce and engaged in handling, weighing, and transporting of grain for sale in foreign commerce; (7) responding to audits of FGIS programs; and (8) reviewing and approving official agencies' fee schedules.

Selected Examples of Recent Progress:

1. Management Control Program. FGIS has established and maintains, at all

levels of the organization, an effective checks-and-balances system of program, accounting, and administrative control. The FGIS management control review program consists of (1) structured internal review processes, (2) external reviews conducted by groups outside of FGIS, i.e., Office of the Inspector General (OIG) and General Accounting Office (GAO); and (3) follow-up reviews. FGIS management supports this program as it has enhanced FGIS' ability to effectively assess the national grain inspection and weighing system.

Those programs and activities reviewed during fiscal year 1993 through the management control program appear to be fundamentally sound, are operating with sufficient controls and security measures, and are in compliance with applicable statutes and regulations. Problem areas have been identified in some of the programs; however, FGIS management has not considered them to be significant enough to warrant material weakness determinations (as defined in OMB Circular A-123) since they have not affected the overall integrity of the programs, inspection system, or mission of the Agency. In accordance with program requirements, FGIS ensures through follow-up reviews that the noncompliance and problem areas are resolved adequately and in a timely manner.

2. Compliance Reviews. During fiscal 1993, FGIS conducted compliance reviews of 4 FGIS field offices and the 2 Federal/State offices to evaluate management effectiveness and procedural compliance; and of 16 designated official agencies to determine whether they meet the criteria for designation. FGIS personnel also conducted special reviews of two field locations' scale testing programs to evaluate nationwide uniformity. Despite the procedural problems that were found in the circuits, FGIS found most of the offices to be well managed, performing satisfactorily, and meeting the Agency's mission. The problems identified have been or are being corrected. Follow-up reviews ensure that appropriate action has been taken to resolve the problems.

As part of all compliance reviews, FGIS interviews applicants for service and official personnel to ensure that there is no discrimination in the delivery of official services. No instances of discrimination in service were identified in the reviews conducted during fiscal year 1993.

3. Official Agency Designations. Seventy-two State and private agencies are designated to provide official services at interior locations. Of these, 8 are State agencies which, also, are delegated to perform official inspection and weighing services at export locations.

Under triennial renewal procedures, 21 official agency designations automatically terminated in fiscal year 1993. Twenty designations were renewed for 3-year terms after reviews of their performance were conducted. The one remaining official agency's designation was renewed for a 12-month interim period. FGIS determined that this official agency was not qualified to be renewed at one of its four service points based upon significant problems that were identified during an investigation conducted by USDA's Office of Inspector General and FGIS personnel. Consequently, FGIS assigned the one service point to a currently designated agency, and renewed the incumbent official agency's designation at the remaining three service points for a 12-month interim period. This interim designation will give FGIS time to determine whether the agency is performing adequately at those service points.

4. Alleged Violations and Case Activity. At the beginning of fiscal year 1993, 12 cases involving alleged violations of the USGSA and the AMA were pending further action. During this fiscal year, 15 cases were opened and 12 cases were closed, leaving 15 cases pending action at the close of fiscal year 1993. Alleged violations during fiscal year 1993 included: deceptive grain handling and loading practices; using improper sampling procedures; altering official samples and certificates; unreported conflicts of interests; and prohibited blending practices in violation of the Grain Quality Improvement Act.

Of the 15 cases opened during fiscal year 1993, FGIS conducted six onsite

investigations. One case was referred to the Food and Drug Administration. The remaining cases were addressed by evaluating information gathered and submitted by FGIS field office personnel.

5. Enforcement Actions. Administrative action was taken on 10 of the 12 cases closed. One was closed due to insufficient evidence to substantiate a violation, and another was closed based on criminal proceedings taken by the U.S. attorney's office.

6. Adding Water to Grain. In 1992, USDA received several complaints from grain merchants about potential grain quality degradation due to the application of water to grain. Complainants contended that the primary purpose of applying water is to increase the weight of the grain. As a result of these complaints, USDA's Office of Inspector General, with FGIS' assistance, has been actively involved in conducting an investigation of a major grain firm that is alleged to have applied water to grain to increase the weight of the grain. This activity led to regulatory actions which are discussed in regard to inspection and weighing services.

7. Registration to Export Grain. During calendar year 1993, FGIS issued 92 Certificates of Registration to firms that export grain for sale; or handle, weigh, or transport grain for sale in foreign commerce.

8. Conflicts of Interest. At the beginning of fiscal year 1993, all five of the designated agencies that have been granted discretionary conflict-of-interest waivers were operating without significant problems. One of those five agencies was sold to a new group, which has eliminated the conflict. Four "conflict" agencies remain.

FGIS received 23 conflict-of-interest situations for evaluation involving licensed personnel. Exceptions, which are granted on the basis of an individual's agreement to comply with specified conditions, were granted to 15: 5 did not constitute a conflict of interest; 1 licensee was denied an exception; and 2 general inquiries were handled.

International Monitoring.

The International Monitoring program functions include (1) traveling to other countries to explain FGIS' inspection and weighing procedures; (2) briefing visiting trade and governmental teams and others on the grain marketing system, FGIS, and grain quality issues; (3) monitoring grain shipments at destination ports to compare origin and destination quality; (4) assisting USDA cooperator organizations with international market development projects, such as installing diverter-type samplers, establishing grain inspection laboratories, testing and evaluating grain inspection equipment accuracy, and providing grain inspection training to local inspectors; and (5) preparing written or on-site responses to discrepancies about grain shipments reported through the Foreign Agricultural Service (FAS) and other sources.

In fiscal year 1993, FGIS received 48 quality and 2 quantity complaints from importers on grains inspected under the Act. The complaints involved 68 lots loaded aboard 62 vessels.

Importers' complaints in fiscal year 1993 involved approximately 1.7 million metric tons, or about 1.6 percent by weight, of the total amount of grain exported during the year. The 19 quality complaints and 2 quantity complaints FGIS received in fiscal year 1992 represented approximately 1.0 percent of total tonnage of grain exports.

## FEDERAL GRAIN INSPECTION SERVICE

(New language is underscored; deleted matter is enclosed in brackets.)

Limitation on Inspection and Weighing Services Expenses

Not to exceed $42,784,000 (from fees collected) shall be obligated during the current fiscal year for Inspection and Weighing Services: Provided, That if grain export activities require additional supervision and oversight, or other uncontrollable factors occur, this limitation may be exceeded by up to 10 per centum with notification to the Appropriations Committees.

## FEDERAL GRAIN INSPECTION SERVICE

## INSPECTION AND WEIGHING SERVICES

| | |
|---|---|
| Obligations, 1994 | $42,784,000 |
| Budget Estimate, 1995 | 42,784,000 |
| Change in Obligations | 0 |

## LIMITATION ON INSPECTION AND WEIGHING EXPENSES

| | |
|---|---|
| Appropriation Act, 1994 | $42,784,000 |
| Change in Limitation | 0 |
| Budget Estimates, 1995 | 42,784,000 |

## PROJECT STATEMENT

| Project | 1993 Actual | | 1994 Estimated | | Increase or Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | | Amount | Staff Years |
| Insp. & Weigh. Activities | $30,884,866 | 537 | $42,784,000 | 532 | - - | $42,784,000 | 532 |
| Unobligated balance avail. start of period | - 7,192,085 | - - | -10,060,155 | - - | - - | -10,060,155 | - - |
| Unobligated balance avail. end of period | 10,060,155 | - - | 10,060,155 | - - | - - | 10,060,155 | - - |
| Collections | 33,752,936 | 537 | 42,784,000 | 532 | - - | 42,784,000 | 532 |

## EXPLANATION OF PROGRAM

The Federal Grain Inspection Service (FGIS) provides an official grain inspection and weighing system under the U.S. Grain Standards Act (USGSA), as amended, and official inspection of rice and grain related products under the Agricultural Marketing Act of 1946 (AMA), as amended. The USGSA was reauthorized in 1993 permitting FGIS to continue to collect user fees to fund the costs associated with the operation, supervision, and administration of Federal grain inspection and weighing activities.

Fees collected under the USGSA and the AMA pay the expenses of the following programs:

1. Inspection Activities

Projected Level of Activity

| | FY 1993 | FY 1994 | FY 1995 |
|---|---|---|---|
| Quantity of Grain Officially Inspected (million metric tons) | | | |
| For Export by Federal Personnel | 87.9 | 74.1 | 85.0 |
| by Delegated State Personnel | 18.8 | 15.8 | 18.2 |
| Domestically | 149.3 | 149.3 | 149.3 |
| Total | 256.0 | 239.2 | 252.5 |
| Number of Inspections and Reinspections | | | |
| By Federal Personnel | 165,847 | 166,000 | 166,000 |
| By Delegated State/Official Agency Licensees | 2,448,417 | 2,448,000 | 2,448,000 |
| Number of Grain Appeals | | | |
| By Field Offices | 9,460 | 9,500 | 8,000 |
| By the Board of Appeals and Review | 1,737 | 1,500 | 1,200 |
| Quantity of Rice Inspected (million metric tons) | 4.6 | 4.6 | 4.6 |
| Quantity of Rice Exports (million metric tons) | 2.7 | 2.8 | 2.5 |

2. Weighing Activities

Projected Level of Activity

| | FY 1993 | FY 1994 | FY 1995 |
|---|---|---|---|
| Export Grain Weighed (million metric tons) | | | |
| By Federal Personnel | 85.0 | 71.7 | 82.6 |
| By Delegated State Personnel | 18.8 | 15.8 | 18.2 |

Federal Grain Inspection Service
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF-YEARS
1993 and Estimated 1994 and 1995
INSPECTION & WEIGHING

| | FY 1993 | | FY 1994 | | FY 1995 | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Alabama | $ 54 | 0 | $ 0 | 0 | $ 0 | 0 |
| Arkansas | 1,770,941 | 31 | 2,456,000 | 31 | 2,456,000 | 31 |
| California | 59,213 | 1 | 82,000 | 1 | 82,000 | 1 |
| District of Columbia | 5,982,223 | 105 | 8,295,000 | 103 | 8,295,000 | 103 |
| Georgia | 174,662 | 3 | 242,000 | 3 | 242,000 | 3 |
| Idaho | 198,535 | 3 | 275,000 | 3 | 275,000 | 3 |
| Illinois | 509,902 | 9 | 806,000 | 10 | 806,000 | 10 |
| Indiana | 71,574 | 1 | 0 | 0 | 0 | 0 |
| Iowa | 227,327 | 4 | 315,000 | 4 | 315,000 | 4 |
| Kansas | 378,367 | 7 | 525,000 | 7 | 525,000 | 7 |
| Louisiana | 9,919,250 | 173 | 13,755,000 | 170 | 13,755,000 | 170 |
| Maryland | 2,316,488 | 40 | 3,212,000 | 40 | 3,212,000 | 40 |
| Michigan | 3,023 | 0 | 0 | 0 | 0 | 0 |
| Minnesota | 294,152 | 5 | 408,000 | 5 | 408,000 | 5 |
| Missouri | 487,876 | 9 | 677,000 | 9 | 677,000 | 9 |
| Nebraska | 328,802 | 6 | 456,000 | 6 | 456,000 | 6 |
| North Dakota | 175,803 | 3 | 244,000 | 3 | 244,000 | 3 |
| Ohio | 1,033,316 | 18 | 1,437,000 | 18 | 1,437,000 | 18 |
| Oregon | 2,401,826 | 42 | 3,331,000 | 42 | 3,331,000 | 42 |
| Texas | 4,132,032 | 72 | 5,730,000 | 72 | 5,730,000 | 72 |
| Washington | 100,860 | 2 | 140,000 | 2 | 140,000 | 2 |
| Total States | 30,566,226 | 534 | 42,386,000 | 529 | 42,386,000 | 529 |
| Canada | 318,640 | 3 | 398,000 | 3 | 398,000 | 3 |
| Total, Available or Estimate | 30,884,866 | 537 | 42,784,000 | 532 | 42,784,000 | 532 |

FEDERAL GRAIN INSPECTION SERVICE

INSPECTION AND WEIGHING SERVICES

STATUS OF PROGRAM

Current activities, progress, and programs for inspection and weighing activities are outlined below:

Current Activities: The USGSA requires, with minor exceptions, that all grain exported by grade must be officially inspected and weighed. FGIS employees and licensed employees of delegated State agencies perform original inspection and weighing services at export port locations in the United States and Canada. Grain which is not being exported may be inspected at interior locations on a request basis, by licensed employees of designated State and private agencies. FGIS employees, on a request basis, perform original inspection and weighing services on grain, oilseeds, pulses, rice, and related grain commodities. FGIS employees supervise and provide oversight for inspectors performing official services.

FGIS will continue to develop new inspection and weighing services while continuing to seek additional ways of reducing costs.

Selected Examples of Recent Progress: (Inspection and Weighing)

1. NIRT Wheat Protein Testing. On May 2, 1993, FGIS initiated official wheat protein inspections using a new technology, near-infrared transmittance (NIRT). The near-infrared reflectance instrument, which was previously used to determine wheat protein, analyzed ground wheat samples. Because the NIRT instruments analyze whole grain samples, this new technology will improve the consistency among official wheat protein test results and reduce the overall costs of official inspection due to reduced labor.

2. Vomitoxin Testing Services. The presence of vomitoxin in the 1993 wheat and barley crops created a market need for official vomitoxin testing. On September 23, 1993, FGIS published an interim rule announcing the immediate availability of official vomitoxin testing services for grain under the authority of the Act. In response to the market's demand for rapid, onsite testing capabilities, FGIS implemented the official services using quick test kits at field locations. FGIS, delegated States, and designated agencies currently are providing the grain industry with official vomitoxin testing service, upon request.

3. Informational Videos. FGIS developed two videos, From Harvest to Harbor and A Question of Quality. From Harvest to Harbor is a brief informational video describing FGIS' basic functions and is directed towards audiences with general agricultural backgrounds.

   A Question of Quality describes diverter-type (D/T) sampling and related techniques and is being used to train official grain samplers. The video provides FGIS and licensed samplers with a clear understanding of all aspects of D/T sampling and related activities, including how to conduct stowage examinations and perform prior-to-operation checks. It also provides detailed information and actual demonstrations of each task performed by D/T sampler attendants.

4. Water in Grain Issues. In 1992, several foreign and domestic grain merchants expressed concern over potential quality degradation due to water applications to grain. They contended that the primary purpose of the applications was to increase the weight of grain.

   In response to these concerns, FGIS published in the January 8, 1993, Federal Register a final rule that amended the regulations to require a "disclosure" statement on official export inspection and weight certificates

whenever water is applied to export grain at export port locations. The purpose of this action was to ensure that foreign buyers of U.S. grain are informed when water has been applied to U.S. export grain. This action did not address nonexport grain.

During and since development of the aforementioned regulations, numerous grain industry groups voiced concerns about the effect of water application on all grain, whether or not such grain is exported from the United States or even offered for official inspection and weighing services. These groups and many individual firms maintain that applying water to grain poses a risk to grain quality and can provide a strong incentive to improperly increase weight.

In response to these concerns, FGIS proposed prohibiting the application of water to grain in the August 4, 1993, Federal Register. This proposed action would not restrict either naturally occurring moisture changes or the addition of water during milling, malting, or similar processing operations. A final decision on the proposed action will be made in fiscal year 1994.

5. Field Automation. FGIS' efforts to integrate modern technology into official field inspection and weighing services continue to show very positive results. Technical parameters provided to the industry have resulted in proposals to install automated systems at eight export elevators. Grain elevators installing a system to automate the weighing and material handling supervision processes can potentially save over $96,000 per shift per year, based on the published hourly contract rate.

   FGIS also is developing software to automate the export inspection statistical shiploading plan. This new system will improve accuracy and efficiency by minimizing manual data collection and calculations and will permit direct data sharing with customers and remote FGIS offices.

6. Barge Fumigation Procedures. To facilitate the marketing and certification of bulk grain and rice transported by river barge, FGIS developed procedures to permit stationary (static) fumigation to correct insect infestation as part of the original inspection service. The fumigation procedure does not automatically remove the special grade "Infested" for grain and Rough rice, or the U.S. Sample grade designation for Brown rice from the inspection certificate because the efficacy of the fumigation cannot be confirmed. The inspection certificate will reflect the quality factor results obtained from the original sample and report infestation based on a condition examination conducted after fumigation.

7. Wheat Classification. FGIS, in cooperation with the Agricultural Research Service (ARS) and the Agricultural Marketing Service (AMS), is continuing to develop an objective wheat classification system. Rather than relying on subjective visual inspection that determines kernel color and morphology, the new system will objectively assess single kernel hardness to differentiate between hard and soft wheat classes.

   Through a cooperative agreement with ARS, a single kernel hardness tester (SKHT) suitable for commercial production and sale was developed in fiscal year 1993. After running performance tests on the commercial models, FGIS initiated a field study in June 1993 to determine the reproducibility and repeatability of the instruments under field conditions.

# PACKERS AND STOCKYARDS ADMINISTRATION

## Purpose Statement

The Packers and Stockyards Administration was reestablished by Secretary's Memorandum No. 1000-1, of June 17, 1981. The Agency administers the Packers and Stockyards Act of 1921, as amended, and carries out the Secretary's responsibilities under Section 1324 of the Food Security Act of 1985 covering "central filing systems" established by States for pre-notification of security interests against farm products. The Agency also has responsibility with respect to persons and firms subject to the Packers and Stockyards Act for the Truth-in-Lending Act, the Fair Credit Reporting Act and the Freedom of Information Act.

The principal purpose of the Packers and Stockyards Administration programs is to assure the integrity of the livestock, meat, and poultry markets and the market place. This includes fostering fair and open competition and guarding against deceptive and fraudulent practices which affect the movement and price of meat animals and the products therefrom. The work of the Agency is also aimed at protecting consumers and members of the livestock, meat and poultry industries against unfair business practices which can unduly affect meat and poultry distribution and prices.

The Food Security Act of 1985 permits the States to establish "central filing systems" for the purpose of pre-notifying buyers, commission merchants, and selling agents of security interests against "farm products." It is the responsibility of the Packers and Stockyards Administration to issue regulations and to certify those systems which meet the criteria set forth in the statute.

Headquarters of the Agency is located in Washington, D.C., with 12 regional offices located in Atlanta, Georgia; Bedford, Virginia; Denver, Colorado; Fort Worth, Texas; Indianapolis, Indiana; Kansas City, Kansas; Lancaster, Pennsylvania; Memphis, Tennessee; Omaha, Nebraska; Portland, Oregon; Sacramento, California; and South St. Paul, Minnesota. As of September 30, 1993, there were 176 full-time permanent and 5 other employees. Of the total, 48 full-time employees worked in the Headquarters office; 128 full-time employees and 5 other employees worked in the regional offices.

PACKERS AND STOCKYARDS ADMINISTRATION

Available Funds and Staff-Years

1993 Actual and Estimated, 1994 and 1995

| Item | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | Amount | Staff-Years |
| Packers and Stockyards Administration .... | $11,996,000 | 190 | $12,123,000 | 190 | $11,989,000 | 185 |

PACKERS AND STOCKYARDS ADMINISTRATION

Permanent Positions by Grade and Staff-Year Summary

1993 Actual and Estimated 1994 and 1995

| Grade | 1993 Head-quarters | 1993 Field | 1993 Total | 1994 Head-quarters | 1994 Field | 1994 Total | 1995 Head-quarters | 1995 Field | 1995 Total |
|---|---|---|---|---|---|---|---|---|---|
| ES-6 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| ES-4 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| GS/GM-15 | 4 | -- | 4 | 4 | -- | 4 | 3 | -- | 3 |
| GS/GM-14 | 10 | -- | 10 | 10 | -- | 10 | 9 | -- | 9 |
| GS/GM-13 | 17 | 12 | 29 | 17 | 12 | 29 | 17 | 11 | 28 |
| GS-12 | 4 | 41 | 45 | 4 | 42 | 46 | 4 | 42 | 46 |
| GS-11 | 2 | 43 | 45 | 2 | 44 | 46 | 2 | 42 | 44 |
| GS-10 | 1 | -- | 1 | 1 | -- | 1 | 1 | -- | 1 |
| GS-9 | 1 | 10 | 11 | 1 | 9 | 10 | 1 | 9 | 10 |
| GS-8 | 3 | -- | 3 | 3 | 0 | 3 | 3 | 0 | 3 |
| GS-7 | 0 | 15 | 15 | 0 | 14 | 14 | 0 | 14 | 14 |
| GS-6 | 7 | 10 | 17 | 7 | 10 | 17 | 7 | 10 | 17 |
| GS-5 | 2 | 6 | 8 | 2 | 6 | 8 | 2 | 6 | 8 |
| GS-4 | 0 | 3 | 3 | -- | 3 | 3 | -- | 3 | 3 |
| GS-3 | 0 | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 |
| GS-2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Other Graded Positions | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ungraded Positions | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Total Permanent Positions | 53 | 140 | 193 | 53 | 140 | 193 | 51 | 137 | 188 |
| Unfilled Positions: end-of-year | -5 | -12 | -17 | -- | -- | -- | -- | -- | -- |
| Total, Permanent Employment, end-of-year | 48 | 128 | 176 | -- | -- | -- | -- | -- | -- |
| Staff Years: Ceiling | 50 | 140 | 190 | 52 | 138 | 190 | 52 | 133 | 185 |

PACKERS AND STOCKYARDS ADMINISTRATION

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| Personnel Compensation: | | | |
| Headquarters..... | $2,572,000 | $2,623,000 | $2,615,000 |
| Field..... | 5,316,000 | 5,497,000 | 5,489,000 |
| 11 Total personnel compensation..... | 7,888,000 | 8,120,000 | 8,104,000 |
| 12 Personnel benefits.. | 1,650,000 | 1,698,000 | 1,687,000 |
| Total personnel comp. and benefits..... | 9,538,000 | 9,818,000 | 9,791,000 |
| Other Objects: | | | |
| 21 Travel..... | 683,000 | 692,000 | 675,000 |
| 22 Transportation of things..... | 26,000 | 26,000 | 26,000 |
| 23.2 Rental payments to others..... | 107,000 | 108,000 | 108,000 |
| 23.3 Communications, utilities, and misc. charges..... | 412,000 | 414,000 | 416,000 |
| 24 Printing and reproduction..... | 29,000 | 29,000 | 30,000 |
| 25.1 Consulting services. | 5,000 | 5,000 | 5,000 |
| 25.2 Other services..... | 545,000 | 548,000 | 542,000 |
| 26 Supplies and materials..... | 198,000 | 198,000 | 187,000 |
| 31 Equipment..... | 391,000 | 285,000 | 209,000 |
| 42 Insurance claims & Idemnity..... | 1,000 | -- | -- |
| Total other objects..... | 2,397,000 | 2,305,000 | 2,198,000 |
| Total direct obligations.... | 11,935,000 | 12,123,000 | 11,989,000 |
| Position Data: | | | |
| Average Salary, ES positions..... | $111,500 | $111,000 | $113,000 |
| Average Salary, GM/GS positions..... | $36,400 | $37,400 | $38,700 |
| Average Grade, GM/GS positions..... | 10.59 | 10.61 | 10.55 |

## PACKERS AND STOCKYARDS ADMINISTRATION

The estimates include proposed changes in the language of this item as follows: (new language underscored; deleted matter enclosed in brackets).

Packers and Stockyards Administration:

For necessary expenses for administration of the Packers and Stockyards Act, as authorized by law, and for certifying procedures used to protect purchasers of farm products, including field employment pursuant to section 706 (a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed $5,000 for employment under 5 U.S.C. 3109. [$12,123,000] $11,989,000.

## SALARIES AND EXPENSES - CURRENT LAW

| | |
|---|---|
| President's Budget, 1994 | $12,123,000 |
| Budget Request, 1995 | 11,989,000 |
| Decrease in Appropriation | - 134,000 |

## SALARIES AND EXPENSES - PROPOSED LEGISLATION

| | |
|---|---|
| Budget Request, Current Law, 1995 | $11,989,000 |
| Change Due to Proposed Legislation | - 8,437,000 |
| Net Request, 1995 President's Budget | $ 3,552,000 |

## SUMMARY OF INCREASES AND DECREASES - CURRENT LAW
(On basis of appropriation)

| Item of Change | 1994 Estimated | Pay Costs | Program Changes | 1995 Estimated |
|---|---|---|---|---|
| Administration of the Packers and Stockyards Act | $12,123,000 | +$ 96,000 | -$230,000 | $11,989,000 |
| Total Available | 12,123,000 | + 96,000 | - 230,000 | 11,989,000 |

## PROJECT STATEMENT - CURRENT LAW
(On basis of appropriation)

| | 1993 Actual | | 1994 Estimated | | Increase or Decrease | 1995 Estimated | |
|---|---|---|---|---|---|---|---|
| | Amount | Staff-Years | Amount | Staff-Years | | Amount | Staff-Years |
| Administration of the Packers and Stockyards Act | $11,934,736 | 190 | $12,123,000 | 190 | -134,000 1/ | $11,989,000 | 185 |
| Unobligated | 61,264 | -- | -- | -- | -- | | -- |
| Total Approriated | 11,996,000 | 190 | 12,123,000 | 190 | -134,000 | 11,989,000 | 185 |

## EXPLANATION OF PROGRAM

The Packers and Stockyards Administration (P&SA) administers the Packers and Stockyards Act (P&S Act) (7 U.S.C. 181-229). The Agency also carries out the Secretary's responsibilities under Section 1324 of the Food Security Act of 1985 covering "central filing systems" established by States for prenotification of security interests against farm products. In addition, the Agency administers the Truth-in-Lending Act (15 U.S.C. 1601 et seq); the Fair Credit Reporting Act (15 U.S.C. 1681 et seq); and the Freedom of Information Act (5 U.S.C. 552) as these statutes apply to persons and firms subject to the P&S Act. Agency programs are designed to assure the integrity of the livestock, meat and poultry markets and the marketplace. Other functions of the Agency include assuring prompt payment to producers for livestock and poultry and assuring nondiscriminatory marketing charges and accurate weights. The Agency's programs also include protecting consumers from unfair business practices in the marketing of meat.

| | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| Investigations | 3,085 | 3,000 | 3,000 |
| Market Agencies/Dealers Registered | 9,382 | 9,500 | 9,500 |
| Stockyards Posted | 1,450 | 1,450 | 1,450 |
| Slaughtering and Processing Packers Subject to the Act (estimated) | 6,500 | 6,500 | 6,500 |
| Distributors, Brokers, and Dealers Subject to the Act (estimated) | 6,900 | 6,900 | 6,900 |
| Poultry Operations Subject to the Act | 275 | 275 | 275 |

The wholesale value of livestock, meat, and poultry products produced by firms subject to the Act was $90 billion in fiscal year 1993, up 1.4 percent from 1992.

The principal activities carried out in administering the Act are:

-Investigating trade practices of packers, market agencies, and dealers to detect fraudulent transactions and to guard against unfair trade practices detrimental to producers and the industry.

-Investigating packer meat merchandising and chain store buying in order to maintain prices established by fair and competitive marketing practices.

-Investigating the financial condition and payment practices of market agencies, dealers, packers, and live poultry dealers subject to the Act to determine if they are financially sound and capable of meeting their obligations.

-Maintaining the integrity of the statutory trust for cash sellers of livestock and poultry.

-Surveillance of marketing at public markets and geographical area markets to foster and maintain fair and effective competition and avoid conflicts of interest.

-Obtaining adequate surety bonds from auction operators, commission firms, dealers, and packers (purchasing more than $500,000 of livestock annually) to assure payment for livestock purchased.

-Investigating poultry marketing practices to identify and correct those which are injurious to producers and operators in the industry.

-Checkweighing at auction markets, terminal stockyards, and at packer and dealer buying stations to foster and maintain integrity in the weights of subject transactions.

-Maintaining a surveillance program at stockyards to assure livestock are being handled and cared for properly.

-Under the Secretary's proposed reorganization, the Packers and Stockyards Administration will be combined with the Federal Grain and Inspection Service and its functions will be transferred to the new agency, Grain Inspection, Packers and Stockyards Administration (GIPSA).

## JUSTIFICATION OF INCREASES AND DECREASES

(1) An net decrease of $134,000 for administration of the Packers and Stockyards Act:

(a) An increase of $96,000 for pay costs.

(b) An increase of $83,000 for non-salary cost increases.

(c) A decrease of $238,000 and 5 staff-years for a reduction in Federal employment.

Need for Change.
In support of the Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, P&SA is reducing employment from the FY 1993 base by three percent.

Nature of Change.
To achieve the reduction, P&SA will streamlime its operation. The total reduction in personnel costs amounts to $238,000. This will be accomplished by placing a hiring freeze on employment.

(d) A decrease of $75,000 for administrative efficiency.

Need for Change.
In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $75,000.

Nature of Change.
In order to achieve these savings, P&SA will reduce administrative expenses by $75,000 in FY 1995, in areas such as software and computer equipment.

PACKERS AND STOCKYARDS ADMINISTRATION

Summary of Proposed Legislation
(Dollars in Thousands)

Summary of Increases and Decreases - Proposed Legislation

| Item of Change | FY 1995 Current Law | FY 1995 Program Changes | FY 1995 Budget Request |
|---|---|---|---|
| Packers and Stockyards Act | $11,989 | -$8,437 | $3,552 |
| Proposed Dealer Trust | (0) | (-179) | (0) |
| Appropriation Request | 11,989 | - 8,437 | 3,552 |

Explanation of Proposed Legislation

Start-Up Costs - Provides a one-time 3-month reserve and start-up of $3,552,000 to convert to license fee status.

License Fees - This proposal would amend the Packers and Stockyards Act to provide authority to collect license fees to cover the cost of the program. Currently, the law provides registration requirements for market agencies and dealers, but there is no authority for licensing fees. All packers, live poultry dealers, stockyard owners, market agencies and dealers, as defined in the Packers and Stockyards Act, would be required to have a valid license and subject to the license fees.

Dealer Trust - The proposed legislation would amend the Packers and Stockyards Act to provide for a statutory "dealer trust." Such a trust would require livestock inventories and accounts receivable due from the sale of livestock to be held in trust for unpaid cash sellers when a dealer fails to pay for livestock. Dealer failures represent a significant amount of unrecovered losses in the livestock marketing chain. A dealer trust would be helpful in minimizing these losses by producers.

Marketing agencies selling livestock on a commission basis have long been required to handle funds received from the sale of consignors' livestock as trust funds and to use a special bank account designated "Custodial Account for Shippers' Proceeds." In 1976, the P&S Act was amended to require meat packers to hold inventories and receivables in trust for unpaid cash livestock sellers in the event of a financial failure. There is no similar protection for livestock sellers when they sell to a dealer.

PACKERS AND STOCKYARDS ADMINISTRATION

STATUS OF PROGRAM

Current Activities: The Packers and Stockyards (P&S) Act of 1921 (7 U.S.C 181-229) is administered to assure free and open competition, fair trade practices, and financial protection to the livestock, meat, and poultry industries. The objectives of the P&S Act are to protect producers, consumers, and competitors against unfair, deceptive, or discriminatory practices as well as those that are predatory or monopolistic in nature. The Agency also carries out the Secretary's responsibilities under Section 1324 of the Food Security Act of 1985 covering "central filing systems" established by States for prenotification of security interests against farm products. Specific areas to which efforts are now being directed are:

1. Payment Protection: It is very important that livestock producers receive payment for the livestock they market. Accordingly, the area of payment protection will continue to receive high priority in work planning and allocation of Agency resources. Particular emphasis will be placed on prompt payment, financial frauds, and material insolvencies. The Agency will continue to investigate failure to pay for meat and poultry and remain actively involved in statutory trust matters and bonding activities.

   The P&S Act provides comprehensive financial protection to cash sellers of livestock to packers. The Agency program to carry out these provisions and activities to prevent losses to livestock sellers receives top priority. Annual reports of packers are analyzed with insolvent packers required to improve their working capital either by adding current assets and/or reducing current liabilities. During fiscal year 1993, insolvent packers improved their working capital by $2.3 million.

2. Custodial Account Audit Program: The Agency will continue its emphasis on custodial account investigations as a means of payment protection for consignors of livestock. A program has been implemented which will assure each custodial account is examined on at least a 3-year frequency.

3. Livestock Marketing: Fraudulent marketing practices such as false weighing, weight and price manipulation, and misrepresentation of livestock as to origin and health continue to be problems within the industry. Emphasis is given to investigating these practices when complaints are received or when they become evident during other investigations.

   Competition for livestock, either in direct trading or at public markets, should be open and free of restrictions. Any practice, agreement, or understanding which excludes potential buyers from bidding in open competition would be considered a restraint on competition. Practices which result in the lessening of competition for producers' livestock include apportioning of territories, price agreements or arrangements not to compete, and payoffs or kickbacks to buyers. Therefore, any information which indicates a possible restriction of competition is investigated on a priority basis.

4. Competition: One of the major responsibilities under the Act is to assure that a fair competitive marketing system exists. The Agency continually monitors the packing industry for unfair practices, and in cooperation with the Justice Department, Antitrust Division, acts to fulfill its responsibilities with regard to concentration and potential competitive restrictions.

5. Meat Marketing: The Agency continues to place emphasis on commercial bribery in the wholesale meat industry, particularly on investigations of meat brokers, since approximately 60 percent of the Agency's formal bribery actions involve brokers. When bribes are present, retail chainstore meat buyers base buying decisions on the amount of the bribe rather than price, quality and service, thereby eliminating fair and open competition.

   Bait-and-switch freezer meat operators continue to be a concern to the Agency. The Agency's policy of referring complaints to State and local authorities, and working with them during the investigative stages, continues to be a satisfactory arrangement.

6. Scales and Weighing: The Agency's mission in this area of responsibility is directed toward two different elements which affect the integrity of subject transactions. These two elements are: (1) the accuracy of the scales used for weighing livestock, meat, and poultry; and, (2) the proper and honest operation of scales to assure that the weight on which a transaction is based is accurate and honest.

   The major emphasis of the Agency in this program area is directed toward the detection of improper and fraudulent use of subject scales. This is an investigative program employing the use of several different types of procedures to determine if weighing activity is proper and honest. Investigative procedures and frequencies are changed, as necessary, to relate to different or changing marketing methods and conditions.

   Assuring the accuracy of subject scales does not require as great an expenditure of Agency resources as does the investigative program. Required tests of subject scales are performed, in most cases, not by Agency personnel, but by State and private testing agencies.

   The Agency monitors this testing by analyzing required reports of tests of subject scales. In order for a scale test to accurately reflect the condition of a scale, the test applied must be correct and sufficient to develop the operating characteristics of the scale under normal conditions of use. Such a test must be comprehensive and carefully controlled. The Agency, as a means of assuring that tests performed on subject scales are proper and complete, is an active participant in a national training program sponsored by the National Conference on Weights and Measures and administered by the National Institute of Standards and Technology. The Agency also participates in the development of curricula for technical training schools and in the conduct of those training schools across the country.

7. Inter-Agency Cooperation - Food Safety: The Agency is continuing to work with other Federal agencies in a cooperative effort to control the marketing of livestock treated with antibiotics and sulfa drugs. The Agency participates in monthly meetings of an Interagency Residue Control Group, along with representatives of the Food and Drug Administration and Food Safety and Inspection Service to foster and maintain cooperation on this important issue.

8. Poultry: Well over 90 percent of all poultry produced in the country are raised under some form of growing arrangement. The Packers and Stockyards Administration strives to ensure that contracted poultry growers are treated fairly and in a nondiscriminatory manner.

9. Care and Handling of Livestock: Under the provisions of the P&S Act, the Agency has jurisdiction over the marketing of livestock at stockyards. If it is found that the care and handling of livestock at a stockyard is in any way unjust, unreasonable, or discriminatory, then rules, regulations, and practices can be prescribed for the handling of such livestock to the extent necessary to protect the quality and value of the animal. The Agency already has adopted a regulation which requires stockyard owners and packers to exercise reasonable care and promptness with respect to handling livestock to prevent shrinkage, injury, death, or other avoidable loss. The Agency also has a surveillance program to review the handling practices, services, and facilities at stockyards.

SELECTED EXAMPLES OF RECENT PROGRESS:

1. Payment Protection:

During fiscal year 1993, the Agency conducted 51 on-site audits which determined that 42 dealers and market agencies were insolvent. A total of 146 dealers and market agencies found to be insolvent through audit or analysis of annual reports improved their working capital by $15.4 million after being placed on notice of the deficiency.

Poultry Growers Protected: During fiscal year 1993, Agency personnel met with numerous State and local poultry growers associations to explain the various provisions of the Packers and Stockyards Act that provide protection to poultry growers. This increased activity by the Agency in matters involving contractual growing of poultry has resulted in several growers contracts being reinstated after having been notified that their contracts were being terminated.

Carcass Merit Purchasing: The Agency developed and implemented procedures to monitor the use of electronic grading devices used by hog slaughterers to purchase hogs on a carcass merit basis. The program ensures the electronic measuring is accurate, properly applied, and the producer receives a true, accurate accounting of the sale.

2. Custodial Accounts: During fiscal year 1993, compliance audits were conducted on 555 custodial accounts which disclosed that 199 markets had shortages in their custodial

accounts totaling $7.2 million. As a result of the audit program, 133 markets restored $3.7 million. Follow-up investigations continue of those markets not correcting shortages.

3. Packer Trust: Since the 1976 amendments to the P&S Act, cash sellers of livestock have been paid $44.8 million under the statutory trust provision. During fiscal year 1993, 10 packer firms paid out $.6 million. Seventeen packer trust investigations were conducted during fiscal year 1993.

4. Live Poultry Trust: A statutory trust provision offering protection to live poultry growers and sellers became effective in February of 1988. Since then, the Agency has investigated 25 poultry failures, with 13 resulting in payments totalling $5,161,284.

5. Clear Title: During fiscal year 1986 regulations were issued to implement Section 1324 of the Food Security Act of 1985 covering "central filing systems" established by States for prenotification of security interests against farm products. As of October 31, 1993, 19 States applied for and received certification of their central filing systems.

6. Financial Fraud: Agency personnel assisted the United States Attorney in prosecuting defendants in a check kiting scheme involving three livestock dealers. Temporary restraining orders and preliminary injunctions were obtained against two livestock markets in Kansas and Texas for alleged misuse of custodial account trust funds for their own purposes and failing to pay for livestock purchases.

   Agency personnel assisted the FBI in an investigation of a New York meat dealer who defrauded a Canadian meat packer out of $881,671 as a result of buying meat with a forged bank letter of credit. The investigation resulted in a 21-month prison term, a $4,000 fine, 3-years probation, and an order to make restitution of the $881,671.

7. Frauds in Livestock Marketing: Violations of the Act involving an undisclosed arbitrary increase in weights and prices is a recurring problem in livestock marketing transactions. Five investigations completed in fiscal year 1993 disclosed fraud schemes by livestock order buyers and dealers. These five investigations involved 10 persons who allegedly marked up the weight on livestock sold to customers. Five of the individuals also created false records to deceive their customers.

8. Commercial Bribery: Several merchandising investigations were conducted nationwide during fiscal year 1993 which included reviewing records for bribery. No formal actions were taken.

9. Scales and Weighing Activities: P&SA conducted 550 weighing investigations in fiscal year 1993. About 10 percent of the investigations disclosed false weighing. More than 17,000 head of livestock were checkweighed by agency personnel in these investigations.

   The Agency conducted three training schools for State and local weights and measures officials from four States. A

total of 23 State and Agency personnel attended these schools conducted as part of the National Training Program. Since the inception of this National Training Program in 1988, the Agency has conducted 15 training schools for 231 officials from 29 States. More of these schools are planned for fiscal year 1994 and beyond.

Five investigations resulted in formal action being taken against nine individuals and a corporation for fraudulent weighing activities. These cases resulted in cease and desist orders and civil penalties totaling $87,500.

The Agency continues to have representation on the National Type Evaluation Program (NTEP) of the National Conference on Weights & Measures (NCWM) and the National Institute of Standards & Technology (NIST). This committee develops and maintains national standards for weighing devices.

10. Packer Bonding: All packers purchasing in excess of $500,000 worth of livestock annually must be bonded.

Packer Bonding Activity

| | |
|---|---|
| Value of bonds ($ in millions) | 300.5 |
| Number of packers bonded 9/30/93 | 509 |
| Number of packer bonds called on in fiscal year 1993 | 15 |
| Value of packer bonds called on ($ in thousands) | 635 |

During fiscal year 1993, three percent of the packer bonds had claims filed for nonpayment of livestock. The value of bonds called on represents 0.2 percent of the total bond coverage value similar to the recovery rate since fiscal year 1984. This low rate of use is primarily due to the success of the statutory trust provision in protecting the dealers' assets.

11. Registration: The Act and regulations require that each market agency and dealer operating in commerce be registered. To comply, a firm must file an application simultaneously with a surety bond or its equivalent.

Registration/Bonding Activity

| | |
|---|---|
| Market agencies/dealers registered and bonded | 7,309 |
| Value of registrants' bonds ($ in millions) | 279.4 |
| Packer buyers - registered only | 2,073 |

During fiscal year 1993, 258 claimants were paid $1.1 million from bond proceeds of dealers and market agencies who failed financially.

12. Care and Handling of Livestock: The handling of livestock at stockyards has received considerable media attention. In order to address this issue, the Agency initiated a surveillance program to review the handling practices, services, and facilities at stockyards to assure livestock are

being handled and cared for properly. During fiscal year 1993, P&SA completed its review of all stockyards regarding animal care and handling practices. The Agency also completed a Nationwide investigation concerning the care and handling of baby calves.

13. Captive Supplies Examined: Livestock producers have expressed concerns that captive supplies may reduce prices paid for fed steers and heifers. Captive supplies are cattle that packers own or contract to purchase before the animals are ready for slaughter. The Agency has contracted for a study of the role of captive supplies in beef packing to be conducted in fiscal years 1993, 1994, and 1995.

14. Reparations: During fiscal year 1993, 20 reparation actions were docketed and 20 complainants sought orders against 33 respondents in the total amount of $828,268.81.

15. Packer Concentration Study: Significant changes are occurring in the structure of the meat packing industry. Congress appropriated $500,000 to the Agency in fiscal year 1992 to study concentration in the red meat packing industry. The project will increase the Agency's understanding of concentration and structural change in the livestock and meat industries, and assist in the Agency's enforcement activities. It also will strengthen the Agency's database and analytical capability to examine the competitive implications of structural changes. Research topics include: A determination of regional cattle procurement markets; an examination of the effects of concentration on prices paid for slaughter cattle; an examination of how cattle prices are determined; an assessment of the role of captive supplies in beef packing; an examination of the implications of vertical coordination in hog production; an evaluation hog procurement in the Eastern Corn Belt; and a literature review of the meat packing industry.

Six contracts totaling $491,861 were awarded in 1992. During fiscal year 1993, the Agency identified data needs, obtained OMB approval and began collecting the large amount of sensitive data needed for the study. Data collection will continue through 1994. Analyses will be conducted in 1994 and 1995. A final summary report and contractors' reports are scheduled for release in 1995.

# SOIL CONSERVATION SERVICE

## Purpose Statement

The Soil Conservation Service (SCS) was established pursuant to Public Law 74-46, known as the Act of April 27, 1935, (16 U.S.C. 590a-590f). Technical programs are carried out in cooperation with conservation districts and other sponsoring local organizations. SCS provides technology transfer through soil conservation districts to landusers, communities, watershed groups, Federal and State agencies, and other cooperators with erosion control and water management problems to bring about needed land treatments and physical adjustments in land use. The purpose is to improve and conserve soil and water resource quantity and quality, improve agriculture, and reduce damage caused by floods and sedimentation.

The Soil Conservation Service has general responsibility for administration of the following programs of the Department of Agriculture:

Conservation Operations is authorized by Public Law 74-46 (16 U.S.C. 590a-590f). Activities include:

1. Conservation technical assistance provided to district cooperators and other landusers in the planning and application of conservation treatments to control erosion and improve the quantity and quality of soil resources, improve and conserve water, enhance fish and wildlife habitat, conserve energy, improve woodland, pasture and range conditions, and reduce upstream flooding; all to protect and enhance the natural resource base.

Information regarding national inventories and appraisals of the resource base are provided to states, districts and other organizations. Technical assistance is provided to monitor and develop effective conservation programs.

2. Soil Surveys are made to inventory the Nation's basic soil resources and to determine land capabilities and conservation treatment needs. Soil survey publications include interpretations useful to cooperators, other Federal agencies, State and local organizations.

3. Snow survey and water forecasting from basic data collected to provide estimates of annual water availability from high mountain snow packs and relating this to summer stream flow in the western States and Alaska. Information is used by agriculture, industry, and cities in estimating future water supplies.

4. Operation of plant materials centers to assemble, test, and encourage increased use of plant species which show promise for use in the treatment of conservation problem areas.

River Basin Surveys and Investigations

This program is authorized by the Watershed and Flood Prevention Act, Public Law 83-566, Section 6, August 4, 1954, (16 U.S.C. 1006).

The program involves cooperation with other Federal, State, and local agencies in the conduct of river basin surveys and investigations, flood hazard analysis, and flood plain management assistance to aid in the development of coordinated water resource programs, including the development of guiding principles and procedures. SCS represents the Department on river basin regional entities and River Basin Interagency Committees for coordination among Federal Departments and States.

Watershed Planning

This activity is carried out under the Watershed and Flood Prevention Act, as amended, Public Law 83-566, August 4, 1954, (16 U.S.C. 1001-1008). The program consists of (a) making preliminary investigations to assess proposed small watershed

projects in response to requests made by sponsoring local organizations and (b) providing assistance to sponsors in the development of watershed work plans. SCS is responsible for development of guiding principles and procedures.

Watershed and Flood Prevention Operations. Activities under this program include:

1. Watershed Operations authorized by Public Law 78-534

SCS administers watershed works of improvement authorized by the Flood Control Act of 1944 (33 U.S.C. 701b-1).

Flood prevention operations include planning and installing works of improvement for flood prevention and for the conservation, development, utilization, and disposal of water. This may also include the development of recreational facilities and the improvement of fish and wildlife habitat. Activities are authorized in 11 specific flood prevention projects covering about 11 million acres.

2. Emergency Operations authorized by Section 216, Public Law 81-516, (33 U.S.C. 701b-1) and Sections 403-405, Public Law 95-334, (16 U.S.C. 2203-2205)

Emergency operations provide for the installation of emergency measures for runoff retardation and soil-erosion prevention, in cooperation with landowners and landusers, as the Secretary deems necessary to safeguard lives and property from floods, drought, and the products of erosion on any watershed whenever fire, flood, or any other natural occurrence is causing or has caused a sudden impairment of that watershed.

3. Small Watersheds authorized by Public Law 83-566, as amended, (16 U.S.C. 1001-1008)

This program provides for cooperation with local sponsors, State, and other public agencies in the installation of planned works of improvement in approved watershed project. Such works of improvement reduce erosion, floodwater, and sediment damage. They also further the conservation, development utilization, and disposal of water, including the development of multipurpose facilities for such uses as recreation, improvement of fish and wildlife habitat, irrigation, and water supply to municipal and industrial users..

Great Plains Conservation Program

The Great Plains Conservation Program is authorized by Public Law 84-1021, as amended, (16 U.S.C. 590p (b)). The program's objective is to bring about a long-term solution to problems resulting from drought and the cultivation of land unsuited for sustained crop production in the 10 Great Plains States. Activities include:

1. Cost-sharing of permanent conservation practices under long-term contracts with farmers and ranchers in designated counties in the 10 Great Plains States.

2. Cost-share programming and contract administration and technical assistance to help make needed land use adjustments and install conservation measures specified in basic conservation plans in accordance with contract schedules.

Resource Conservation and Development Program

Section 102 of the Food and Agriculture Act of 1962 (Public Law 87-703), (7 U.S.C. 1010-1011) and Sections 1528-1538 of the Agriculture and Food Act of 1981 (Public Law 97-98) provide authority to assist locally sponsored Resource Conservation and Development Projects to conduct programs of land conservation and use in areas where acceleration of present conservation activities are needed and where projects add economic opportunities to the people.

Program Administration: The Soil Conservation Service maintains its central office in Washington, D.C. Most of its activities are carried out in about 3,050 field offices in the 50 States, Puerto Rico, and the Pacific Basin Area serving Guam, the Northern Mariana Islands, and American Samoa. Four technical service centers provide program coordination and technical support. This includes services such as engineering, watershed planning, cartographic work, soil mechanics laboratories, information, professional help in agronomy, soils, biology, forestry, plant materials, range conservation, and other technical work. As of September 30, 1993, there were 12, 369 full-time employees and 2,075 part-time, intermittent, and other employees. Of these 428 full-time employees and 29 other employees were located in Headquarters, Washington, D.C.

Soil Conservation Service
Available Funds and Staff-Years
1993 and Estimated, 1994 and 1995

| ITEM | 1993 Actual Amount 1/ | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|
| Soil Conservation Service: | | | | | | |
| Conservation Operations 2/ | $601,494,113 | 10,848 | $611,567,000 | 10,492 | $639,635,000 | 10,473 |
| River Basin Surveys and Investigations | 13,251,000 | 207 | 13,482,000 | 205 | 11,000,000 | 164 |
| Watershed Planning | 9,545,000 | 143 | 10,921,000 | 159 | 7,400,000 | 107 |
| Watershed and Flood Prevention Operations | 278,594,000 | 1,602 | 266,965,000 | 1,512 | 25,000,000 | 371 |
| Great Plains Conservation Program | 25,271,000 | 171 | 25,658,000 | 169 | 10,937,000 | 158 |
| Resource Conservation and Development | 32,516,000 | 525 | 32,945,000 | 477 | 26,157,000 | 407 |
| Total | 960,671,113 | 13,496 | 961,538,000 | 13,014 | 720,129,000 | 11,680 |
| Obligations under other USDA appropriations: | | | | | | |
| Reimbursements for technical services to: | | | | | | |
| Foreign Details and Assignments (OICD) | 922,891 | 14 | 952,000 | 14 | 952,000 | 14 |
| Soil Survey (FS) | 214,409 | 5 | 221,000 | 5 | 221,000 | 5 |
| Accelerate Soil Survey | 380,205 | 6 | 392,000 | 6 | 392,000 | 6 |
| Snow Survey and Water Forecasting | 6,000 | -- | 6,000 | -- | 6,000 | -- |
| Other: planning and application | 6,239,070 | 2 | 2,973,000 | 3 | 4,476,852 | 80 |
| Hazardous Waste Mgmt. | 352,676 | -- | 250,000 | -- | -- | -- |
| Reimbursement for other services for: | | | | | | |
| Facilities: Rent, phone, utilities, etc | 6,322,151 | -- | 6,522,000 | -- | 6,522,000 | -- |
| Proceeds of sales | 225,441 | -- | 197,000 | -- | 184,000 | -- |
| Miscellaneous | 2,073,833 | 23 | 2,105,000 | 23 | 2,105,000 | 23 |
| Total, Other USDA Appropriations | 16,736,676 | 50 | 13,618,000 | 51 | 14,858,852 | 128 |
| Total, Agriculture Appropriations | 977,407,789 | 13,546 | 975,156,000 | 13,065 | 734,987,852 | 11,808 |
| Obligations under other Federal appropriations: | | | | | | |
| Reimbursement for technical services for: | | | | | | |
| Soil surveys(Interior) | 898,909 | 17 | 926,000 | 17 | 926,000 | 17 |
| Accelerate Soil Survey | 707,187 | 12 | 711,000 | 12 | 711,000 | 12 |
| Other: planning and application | 2,864,605 | 45 | 2,479,000 | 47 | 1,940,000 | 26 |
| Snow Survey and Water Forecasting | 54,507 | 1 | 56,000 | 1 | 56,000 | 1 |
| Plant Materials Center Operations | 103,900 | 2 | 53,000 | 2 | 53,000 | 2 |
| Cooperative surveys-RB | 47,500 | 1 | 49,000 | 1 | 49,000 | 1 |
| Flood Insurance Stucies (HUD) | 207,300 | 5 | 210,000 | 5 | 210,000 | 5 |
| Reimbursement for other services for: | | | | | | |
| Facilities: Rent, phone, utilities, etc | 77,146 | -- | 79,716 | -- | 82,716 | -- |
| Proceeds of sales | 122,265 | -- | 156,400 | -- | 146,400 | -- |

Available Funds and Staff-Years 1993 and Estimated, 1994 and 1995 - Continued

| ITEM | 1993 Actual Amount | 1993 Actual Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|
| Financial assistance.. | 1,868,344 | -- | 1,614,000 | -- | -- | -- |
| Miscellaneous..... | 5,130,535 | 71 | 5,746,724 | 71 | 5,649,724 | 69 |
| Allocation from Other Federal Agencies: | | | | | | |
| Rural Abandoned Mine Program (DOI-OSM).... | 13,377,017 | -- | 13,378,953 | -- | -- | -- |
| Obligations under non-Federal Funds: | | | | | | |
| Reimbursement for technical service for: | | | | | | |
| Planning & application | 2,675,987 | 60 | 2,884,000 | 61 | 2,710,000 | 61 |
| Accelerate Soil Survey | 2,474,569 | 52 | 2,547,000 | 52 | 2,547,000 | 52 |
| Snow Survey and Water Forecasting..... | 39,992 | -- | 63,000 | -- | 63,000 | -- |
| Plant Materials Center Operations..... | 243,556 | -- | 250,000 | -- | 250,000 | -- |
| Watershed Planning.... | 123,111 | 2 | 173,000 | 2 | 173,000 | 2 |
| Abandon Mine Program.. | 1,668 | -- | 10,000 | -- | -- | -- |
| Reimbursement for other non-federal services for: | | | | | | |
| Facilities: Rent, phone, utilities, etc | 1,077,438 | -- | 1,109,000 | -- | 1,109,000 | -- |
| Proceeds of sales..... | 735,377 | -- | 709,000 | -- | 676,000 | -- |
| Financial Assistance.. | 15,192,464 | -- | 8,152,000 | -- | -- | -- |
| Miscellaneous..... | 5,101,285 | 79 | 5,102,000 | 82 | 4,988,000 | 76 |
| Trust funds: | | | | | | |
| Small Watershed & RC&D projects and soil surveys..... | 402,682 | 6 | 501,000 | 8 | 447,000 | 7 |
| Total Reimbursements and Other Funds... | 70,264,020 | 403 | 60,577,793 | 412 | 37,645,692 | 459 |
| Total, Soil Conservation Service..... | $1,030,935,133 | 13,899 | $1,022,115,793 | 13,426 | $757,774,692 | 12,139 |

| Full-Time Equivalent Staff-Years: | 1993 Actual | 1994 Estimated | 1995 Estimated |
|---|---|---|---|
| Ceiling..... | 13,899 | 13,426 | 12,139 |
| Non-ceiling..... | 69 | 54 | 17 |
| Total..... | 13,968 | 13,480 | 12,156 |

1/ Conservation Operations - Excludes $0 carryover for FY 1993 and $8,595,854 carryover for FY 1994.
Watershed and Flood Prevention Operations - Excludes $85,746,759 carryover for FY 1993 and $82,513,646 carryover for FY 1994.
Great Plains Conservation Program - Excludes $363,506 carryover for FY 1993 and $228,430 carryover for FY 1994.
Resource Conservation and Development - Excludes $2,625,281 carryover for FY 1993 and $2,297,802 carryover for FY 1994.

2/ FY 1993 and 1994 were adjusted for comparability to reflect the FY 1995 budget proposal to fund technical assistance for USDA conservation cost-share programs in the Conservation Operations program.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Permanent Positions by Grade and Staff-Year Summary

1993 and Estimated 1994 and 1995

| Grade | 1993 | | | 1994 | | | 1995 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Head-qtrs | Field | Total 1/ | Head-qtrs | Field | Total 1/ | Head-qtrs | Field | Total 1/ |
| ES-6 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 |
| ES-5 | 8 | 0 | 8 | 8 | 0 | 8 | 8 | 0 | 8 |
| ES-4 | 8 | 1 | 9 | 8 | 1 | 9 | 8 | 1 | 9 |
| ES-3 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 |
| ES-2 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| ES-1 | 4 | 2 | 6 | 4 | 2 | 6 | 4 | 2 | 6 |
| GS/GM-15 | 72 | 68 | 140 | 71 | 65 | 136 | 64 | 59 | 123 |
| GS/GM-14 | 115 | 169 | 284 | 118 | 163 | 281 | 107 | 147 | 254 |
| GS/GM-13 | 118 | 642 | 760 | 117 | 636 | 753 | 106 | 575 | 681 |
| GS-12 | 41 | 2,112 | 2,153 | 40 | 2,092 | 2,132 | 36 | 1,891 | 1,927 |
| GS-11 | 28 | 3,561 | 3,589 | 28 | 3,528 | 3,556 | 25 | 3,189 | 3,214 |
| GS-10 | 7 | 16 | 23 | 7 | 16 | 23 | 6 | 14 | 20 |
| GS-9 | 22 | 2,060 | 2,082 | 20 | 2,042 | 2,062 | 18 | 1,846 | 1,864 |
| GS-8 | 4 | 431 | 435 | 4 | 427 | 431 | 4 | 386 | 390 |
| GS-7 | 42 | 1,944 | 1,986 | 39 | 1,927 | 1,966 | 35 | 1,742 | 1,777 |
| GS-6 | 39 | 906 | 945 | 36 | 897 | 933 | 33 | 811 | 844 |
| GS-5 | 11 | 792 | 803 | 11 | 784 | 795 | 10 | 709 | 719 |
| GS-4 | 11 | 405 | 416 | 11 | 401 | 412 | 10 | 363 | 373 |
| GS-3 | 1 | 90 | 91 | 1 | 89 | 90 | 1 | 80 | 81 |
| GS-2 | 0 | 13 | 13 | 0 | 13 | 13 | 0 | 12 | 12 |
| GS-1 | 2 | 4 | 6 | 1 | 4 | 5 | 1 | 4 | 5 |
| Other Graded Positions | 7 | 0 | 7 | 7 | 0 | 7 | 6 | 0 | 6 |
| Ungraded Positions | 0 | 43 | 43 | 0 | 43 | 43 | 0 | 39 | 39 |
| Total Permanent Positions | 543 | 13,261 | 13,804 | 534 | 13,132 | 13,666 | 485 | 11,872 | 12,357 |
| Unfilled Positions end-of-year | -13 | -809 | -822 | -13 | -801 | -814 | -12 | -724 | -736 |
| Total, Permanent Employment, end-of-year | 530 | 12,452 | 12,982 | 521 | 12,331 | 12,852 | 473 | 11,148 | 11,621 |
| Staff-Years: Ceiling | 530 | 13,369 | 13,899 | 521 | 12,905 | 13,426 | 480 | 11,659 | 12,139 |

1/ Excludes positions for Rural Abandoned Mine Program.

SOIL CONSERVATION SERVICE

CLASSIFICATION BY OBJECTS

1993 and Estimated 1994 and 1995

| | FY 1993 | FY 1994 | FY 1995 |
|---|---|---|---|
| Personnel Compensation | | | |
| Headquarters | $ 27,367,015 | $28,109,000 | $23,889,000 |
| Field | 437,524,307 | 447,269,000 | 417,135,000 |
| 11 Total personnel compensation | 464,891,322 | 475,378,000 | 441,024,000 |
| 12 Personnel benefits | 104,454,806 | 108,917,000 | 104,361,000 |
| 13 Benefits for former personnel | 468,946 | 462,000 | 444,000 |
| Total personnel compensation & benefits | 569,815,074 | 584,757,000 | 545,829,000 |
| Other Objects | | | |
| 21 Travel | 21,452,622 | 21,622,000 | 19,504,000 |
| 22 Transportation of things | 4,170,055 | 4,226,000 | 4,055,000 |
| 23.2 Rental payments to others | 12,668,430 | 11,872,000 | 11,026,000 |
| 23.3 Communications, utilities and miscellaneous charges | 21,503,026 | 22,695,000 | 21,447,000 |
| 24 Printing and reproduction | 4,732,682 | 4,791,000 | 4,623,000 |
| 25.1 Consulting services | -- | 385,000 | 385,000 |
| 25.2 Other services | 67,340,396 | 69,482,000 | 62,554,000 |
| 25.2 Construction contracts | 126,391,310 | 181,451,000 | -- |
| 26 Supplies and materials | 18,399,911 | 18,528,000 | 15,670,000 |
| 31 Equipment | 36,723,429 | 42,997,000 | 31,200,000 |
| 32 Land and structures | 658,519 | 1,032,000 | 606,000 |
| 41 Grants, subsidies, and contributions | 64,167,051 | 87,118,000 | 2,045,000 |
| 42 Insurance claims and indemnities | 123,514 | 126,000 | 131,000 |
| 43 Interest and dividends | 25,696 | 25,000 | 16,000 |
| 44 Refunds | -- | -- | -- |
| Total other objects | 378,356,641 | 466,350,000 | 173,262,000 |
| Total direct obligations | $948,171,715 | $1,051,107,000 | $719,091,000 |
| Position Data | | | |
| Average Salary, ES positions | $104,970 | 109,059 | 111,447 |
| Average Salary, GM/GS positions | $37,583 | 39,047 | 39,902 |
| Average Grade, GM/GS positions | 9.71 | 9.422 | 9.429 |

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service

Personnel Summary
FY 1993 Actual

| | Agency 1/ | Full-Time | Other | Overtime & Holidays Worked | Total Staff Years |
|---|---|---|---|---|---|
| Conservation Operations | SCS | 9,004 | 924 | 17 | 9,945 |
| River Basin Surveys and Investigations..... | SCS | 181 | 14 | -- | 195 |
| | FS | 7 | 1 | -- | 8 |
| | Subtotal | 188 | 15 | -- | 203 |
| Watershed Planning..... | SCS | 135 | 4 | -- | 139 |
| | FS | 1 | -- | -- | 1 |
| | Subtotal | 136 | 4 | -- | 140 |
| Watershed and Flood Prevention Operations | SCS | 1,454 | 84 | 52 | 1,590 |
| | FmHA | 7 | -- | -- | 7 |
| | FS | 25 | 8 | 1 | 34 |
| | Subtotal | 1,486 | 92 | 53 | 1,631 |
| Great Plains Conservation Program..... | SCS | 161 | 6 | -- | 167 |
| Resource Conservation and Development..... | SCS | 438 | 72 | -- | 510 |
| | FmHA | 2 | -- | -- | 2 |
| | FS | 3 | -- | -- | 3 |
| | Subtotal | 443 | 72 | -- | 515 |
| Total Direct Program... | SCS | 11,373 | 1,104 | 69 | 12,546 |
| | FmHA | 9 | -- | -- | 9 |
| | FS | 36 | 9 | 1 | 46 |
| | Subtotal | 11,418 | 1,113 | 70 | 12,601 |
| Reimbursable Programs.. | SCS | 997 | 117 | -- | 1,114 |
| Miscellaneous Contributed Funds..... | SCS | 4 | 2 | -- | 6 |
| Allocation from DOI (Abandoned Mine)..... | SCS | 76 | 6 | -- | 82 |
| Total Program..... | SCS | 12,450 | 1,229 | 69 | 13,748 |
| | FmHA | 9 | -- | -- | 9 |
| | FS | 36 | 9 | 1 | 46 |
| | Total | 12,495 | 1,238 | 70 | 13,803 |

1/ SCS: Soil Conservation Service
FS: Forest Service
FmHA: Farmers Home Administration

SOIL CONSERVATION SERVICE
(SCS Only)
Salaries and Expenses
FY 1993 Actual
(Dollars in Thousands)

| | Total Obligations | Conservation Operations | River Basin Surveys and Investi-gations | Watershed Planning | Watershed and Flood Prevention Operations | Great Plains Conservation Program | Resource Conservation and Development |
|---|---|---|---|---|---|---|---|
| Management and Program Direction: | | | | | | | |
| Washington Headquarters..... | $61,044 | $46,658 | $1,117 | $571 | $10,326 | $598 | $1,774 |
| State Offices..... | 88,516 | 63,635 | 1,837 | 1,759 | 16,343 | 864 | 4,078 |
| Technical Service Centers..... | 6,594 | 4,940 | 154 | 37 | 1,314 | 63 | 86 |
| SUBTOTAL..... | 156,154 | 115,233 | 3,108 | 2,367 | 27,983 | 1,525 | 5,938 |
| %..... | 21.37 | 20.28 | 25.07 | 25.68 | 27.48 | 16.93 | 19.70 |
| Technical Support: | | | | | | | |
| State Technical Specialists.... | 51,994 | 39,096 | 2,373 | 1,859 | 7,931 | 274 | 461 |
| Technical Service Centers..... | 9,864 | 7,448 | 241 | 838 | 952 | 96 | 289 |
| Other National Units..... | 1,094 | 1,088 | -- | 3 | 3 | -- | -- |
| SUBTOTAL..... | 62,952 | 47,632 | 2,614 | 2,700 | 8,886 | 370 | 750 |
| %..... | 8.61 | 8.38 | 21.08 | 29.29 | 8.72 | 4.11 | 2.49 |
| Program Operations: | | | | | | | |
| Technical Service Centers..... | 19,525 | 14,589 | 282 | 308 | 4,058 | 65 | 223 |
| Plant Materials Centers..... | 7,049 | 6,987 | -- | -- | 62 | -- | -- |
| Other National Units..... | 11,449 | 10,119 | -- | -- | 1,330 | -- | -- |
| Miscellaneous State Units..... | 33,982 | 10,073 | 4,816 | 3,316 | 14,396 | 59 | 1,322 |
| Area Office Staffs..... | 86,579 | 72,326 | 435 | 43 | 10,519 | 1,321 | 1,935 |
| Miscellaneous Area Units..... | 60,120 | 28,380 | 78 | 12 | 13,858 | -- | 17,792 |
| Field Office Staffs..... | 292,949 | 262,806 | 1,066 | 471 | 20,754 | 5,667 | 2,185 |
| SUBTOTAL..... | 511,653 | 405,280 | 6,677 | 4,150 | 64,977 | 7,112 | 23,457 |
| %..... | 70.02 | 71.34 | 53.85 | 45.03 | 63.80 | 78.96 | 77.81 |
| TOTAL..... | $730,759 | $568,145 | $12,399 | $9,217 | $101,846 | $9,007 | $30,145 |
| %..... | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

| | Total Obligations | Conservation Operations | River Basin Surveys and Investi-gations | Watershed Planning | Watershed and Flood Prevention Operations | Great Plains Conservation Program | Resource Conservation and Development |
|---|---|---|---|---|---|---|---|
| Organizational Summary: | | | | | | | |
| Washington Headquarters..... | $61,044 | $46,658 | $1,117 | $571 | $10,326 | $598 | $1,774 |
| State Offices..... | 88,516 | 63,635 | 1,837 | 1,759 | 16,343 | 864 | 4,078 |
| State Technical Specialists.... | 51,994 | 39,096 | 2,373 | 1,859 | 7,931 | 274 | 461 |
| Technical Service Centers..... | 35,983 | 26,977 | 677 | 1,183 | 6,324 | 224 | 598 |
| Plant Materials Centers..... | 7,049 | 6,987 | -- | -- | 62 | -- | -- |
| Other National Units..... | 12,543 | 11,207 | -- | 3 | 1,333 | -- | -- |
| Miscellaneous State Units..... | 33,982 | 10,073 | 4,816 | 3,316 | 14,396 | 59 | 1,322 |
| Area Office Staffs..... | 86,579 | 72,326 | 435 | 43 | 10,519 | 1,321 | 1,935 |
| Miscellaneous Area Units..... | 60,120 | 28,380 | 78 | 12 | 13,858 | -- | 17,792 |
| Field Office Staffs..... | 292,949 | 262,806 | 1,066 | 471 | 20,754 | 5,667 | 2,185 |
| TOTAL SCS..... | 730,759 | 568,145 | 12,399 | 9,217 | 101,846 | 9,007 | 30,145 |
| Cost-Share/Construction..... | 192,659 | -- | -- | -- | 174,212 | 16,399 | 2,048 |
| TOTAL SCS OBLIGATIONS NET | 923,418 | 568,145 | 12,399 | 9,217 | 276,058 | 25,406 | 32,193 |
| FmHA..... | 313 | -- | -- | -- | 253 | -- | 60 |
| FS..... | 6,471 | -- | 793 | 301 | 4,786 | -- | 591 |
| Subtotal..... | 6,784 | -- | 793 | 301 | 5,039 | -- | 651 |
| TOTAL OBLIGATIONS, NET OF REIMBURSEMENTS..... | $930,202 | $568,145 | $13,192 | $9,518 | $281,097 | $25,406 | $32,844 |

NOTE: The above table does not reflect proposed legislation to transfer the administration of ASCS cost-share programs to SCS.

## SOIL CONSERVATION SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Conservation Operations

For necessary expenses for carrying out the provisions of the Act of April 27, 1935 (16 U.S.C. 590a-590f) including preparation of conservation plans and establishment of measures to conserve soil and water (including farm irrigation and land drainage and such special measures for soil and water management as may be necessary to prevent floods and the siltation of reservoirs and to control agricultural related pollutants); operation of conservation plant materials centers; classification and mapping of soil; dissemination of information; acquisition of lands by donation, exchange, or purchase at a nominal cost not to exceed $100; purchase and erection or alteration or improvement of permanent and temporary buildings; and operation and maintenance of aircraft, [$591,049,000] $639,635,000, to remain available until expended (7 U.S.C. 2209b); of which not less than [$5,820,000] $5,756,000 is for snow survey and water forecasting and not less than [$8,214,000] $8,745,000 is for operation and establishment of the plant materials centers: Provided, That except for $2,399,000 for improvements of the plant materials centers, the cost of any permanent building purchased, erected, or as improved, exclusive of the cost of constructing a water supply or sanitary system and connecting the same to any such building and with the exception of buildings acquired in conjunction with land being purchased for other purposes, shall not exceed $10,000, except for one building to be constructed at a cost not to exceed $100,000 and eight buildings to be constructed or improved at a cost not to exceed $50,000 per building and except that alterations or improvements to other existing permanent buildings costing $5,000 or more may be made in any fiscal year in an amount not to exceed $2,000 per building: Provided further, That when buildings or other structures are erected on non-Federal land that the right to use such land is obtained as provided in 7 U.S.C. 2250a: Provided further, that this appropriation shall be available for technical assistance and related expenses to carry out programs authorized by sections 7 to 15, 16(a), 16(f), and 17 of the Soil Conservation and Domestic Allotment Act, as amended (16 U.S.C. 590g-590o, 590p(a), 590p(f) and 590p(g); the Water Bank Act, as amended(16 U.S.C. 1301-1311); Section 202(c) of title II of the Colorado River Basin Salinity Control Act of 1974, as amended (43 U.S.C. 1592(c); sections 401, 402, and 404 of the Agricultural Credit Act of 1978 (16 U.S.C. 2201 to 2205), and title XII of the Food Security Act of 1985 as amended (16 U.S.C. 3811 et.seq.): Provided further, That no part of this appropriation may be expended for soil and water conservation operations under the Act of April 27, 1935 (16 U.S.C. 590a-590f) in demonstration projects: Provided further, That this appropriation shall be available for employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225) and not to exceed $25,000 shall be available for employment under 5 U.S.C. 3109: Provided further, That qualified local engineers may be temporarily employed at per diem rates to perform the technical planning work of the Service (16 U.S.C. 590e-2).

The change in language provides authority to fund the technical assistance portion of the Conservation Reserve Program, the Wetland Reserve Program, the Agricultural Conservation Program, the Water Bank Program, the Emergency Conservation Program and the Colorado River Basin Salinity Control Program as part of the Conservation Technical Assistance program. These costs are currently provided within the cost share appropriation accounts, and the technical assistance is carried out as a reimbursable program activity of the Conservation Technical Assistance program.

## Conservation Operations

| | | |
|---|---|---|
| Appropriations Act, 1994 | | $591,049,000 |
| Agency Request, 1995 | | 639,635,000 |
| Increase in Appropriation | | +$48,586,000 |
| Adjustments in 1994: | | |
| Appropriations Act, 1994 | $591,049,000 | |
| Transfer from Rental Payments (USDA) Account for Non-GSA buildings a/ | +245,467 | |
| Transfer to the Departmental Secretary's Office per provisions of the 1994 Appropriations Act b/ | -116,000 | |
| Transfer from ASCS to reflect the Fiscal Year 1995 proposal to fund technical assistance for USDA conservation cost share programs in the Conservation Operations program.c/ | +20,634,000 | |
| Adjusted base for 1994 | | $611,812,467 |
| Budget Estimate, 1995 | | 639,635,000 |
| Increase over adjusted 1994 | | +$27,822,533 |

a/ Funds were transferred from the Rental Payments (USDA) account for leases reassigned by GSA to SCS in 1993 and 1994.

b/ Public Law 103-111 provided that the Secretary may transfer salaries and expenses funds in the 1994 Appropriations Act sufficient to finance not to exceed 35 staff years between agencies of the Department of Agriculture to meet workload requirements. The $116,000 transfer from the Soil Conservation Service would fund about 1 staff year.

c/ The fiscal year 1995 budget proposes to fund the SCS technical assistance for USDA conservation cost share programs currently administered by the Agricultural Conservation and Stabilization Service and paid for by reimbursable agreement as a direct Conservation Operations program activity starting in 1995.

### SUMMARY OF INCREASES
(on basis of adjusted appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Technical assistance | $523,199,467 | +$6,308,000 | +$20,368,533 | $549,876,000 |
| Soil survey | 73,904,000 | +836,000 | +518,000 | 75,258,000 |
| Snow survey and water forecasting | 5,820,000 | +50,000 | -114,000 | 5,756,000 |
| Operation of plant materials ctrs. | 8,889,000 | +69,000 | -213,000 | 8,745,000 |
| TOTAL AVAILABLE | $611,812,467 | +$7,263,000 | +$20,559,533 | $639,635,000 |

### PROJECT STATEMENT - CURRENT LAW
(On basis of adjusted appropriation)

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 1. Technical assistance | $515,163,113 | 9,467 | $523,199,467 | 9,150 | +$26,676,533(1) | $549,876,000 | 9,158 |
| 2. Soil surveys | 72,554,000 | 1,163 | 73,904,000 | 1,128 | +1,354,000(2) | 75,258,000 | 1,118 |
| 3. Snow survey and water forecasting | 5,713,000 | 78 | 5,820,000 | 76 | -64,000(3) | 5,756,000 | 73 |
| 4. Operation of plant materials centers | 8,064,000 | 140 | 8,889,000 | 138 | -144,000(4) | 8,745,000 | 124 |
| Total available estimate | $601,494,113 | 10,848 | $611,812,467 | 10,492 | +$27,822,533 | $639,635,000 | 10,473 |

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Transfer to Dept.... | +212,000: | --: | +116,000: | --: | | | |
| Transfer from Rental | -413,450: | --: | -245,467: | --: | | | |
| Transfer from ASCS for technical assistance..... | -24,753,663: | -717: | -20,634,000: | -539: | | | |
| Total, appropriat'n. | $576,539,000: | 10,131: | $591,049,000: | 9,953: | | | |

NOTE: A request has been submitted to Congress to rescind $12,167,000 (R94-9). The rescission reflects the savings in Conservation Operations of implementing the National Performance Review proposal to reorganize USDA, and would reduce fiscal year 1994 staff years by about 195 FTE.

PROJECT STATEMENT - CURRENT LAW
(On basis of available funds)

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 1. Technical assistance. | $508,419,757: | 9,467: | $529,942,823: | 9,150: | +$19,933,177(1) | $549,876,000: | 9,158 |
| 2. Soil surveys | 71,456,055: | 1,163: | 75,001,945: | 1,128: | +256,055(2) | 75,258,000: | 1,118 |
| 3. Snow survey and water forecasting | 5,575,639: | 78: | 5,957,361: | 76: | -201,361(3) | 5,756,000: | 73 |
| 4. Operation of plant materials centers.... | 7,446,808: | 140: | 9,506,192: | 138: | -761,192(4) | 8,745,000: | 124 |
| Total direct obligations... | 592,898,259: | 10,848: | 620,408,321: | 10,492: | +19,226,679 | 639,635,000: | 10,473 |
| Unobligated balance brought forward..... | (--) | (--) | (-8,595,854) | (--) | (+8,595,854) | --: | -- |
| Unobligated balance carried forward..... | (+8,595,854) | (--) | (--) | (--) | -- | --: | -- |
| Adjusted appropriation. | (601,494,113) | (10,848) | (611,812,467) | (10,492) | (+27,822,533) | (639,635,000) | (10,473) |
| Reimbursable obligations: | | | | | | | |
| 1. Technical assistance. | 28,318,583: | 212: | 25,552,840: | 212: | +1,533,852 | 27,086,692: | 290 |
| 2. Soil surveys | 6,274,416: | 119: | 6,464,000: | 119: | -- | 6,464,000: | 119 |
| 3. Snow survey and water forecasting | 281,856: | 2: | 291,000: | 2: | -- | 291,000: | 2 |
| 4. Operation of plant materials centers.... | 1,685,770: | 17: | 1,737,000: | 17: | -- | 1,737,000: | 17 |
| Total, reimbursable obligations... | 36,560,625: | 350: | 34,044,840: | 350: | +1,533,852 | 35,578,692: | 428 |
| Obligational authority..... | $629,458,884: | 11,198: | $654,453,161: | 10,842: | +$20,760,531 | $675,213,692: | 10,901 |

## SOURCES OF REIMBURSEMENTS

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Within USDA: | | | | | | | |
| Office of International Cooperation & Development | $784,931 | 12 | $810,000 | 12 | -- | $810,000 | 12 |
| Other | 15,495,620 | 37 | 12,478,000 | 37 | +$1,523,852 | 14,001,852 | 37 |
| Other Federal | 8,991,708 | 124 | 9,129,840 | 124 | -- | 9,129,840 | 124 |
| Non-Federal: | | | | | | | |
| State and Counties for Soil Surveys | 2,472,803 | 52 | 2,547,000 | 52 | -- | 2,547,000 | 52 |
| Other | 8,815,563 | 125 | 9,080,000 | 125 | -- | 9,080,000 | 125 |
| Adjusted reimbursmnt | 36,560,625 | 350 | 34,044,840 | 350 | +1,523,852 | $35,568,692 | 350 |
| Transfer from ASCS for technical assistance | (24,753,663) | (717) | (20,634,0000 | 539) | (-20,634,148) | | |
| Total reimbursements | ($61,314,288) | (1,067) | ($54,678,840) | (889) | (-$19,100,148) | | |

## OUTLAYS

| | 1993 Actual | 1994 estimated | Increase | 1995 estimated |
|---|---|---|---|---|
| 1. Technical Assistance | $493,628,367 | $488,574,000 | +$51,398,000 | $539,972,000 |
| 2. Soil Surveys | 72,927,868 | 71,968,000 | +2,529,000 | 74,497,000 |
| 3. Snow Survey and Water Forecasting | 5,690,484 | 5,709,000 | +12,000 | 5,721,000 |
| 4. Operation of Plant Materials Centers | 7,600,193 | 8,987,000 | -262,000 | 8,725,000 |
| Actual Outlays | 579,846,912 | 575,238,000 | +53,677,000 | $628,915,000 |
| Transfer from ASCS for technical assistance | (24,753,663) | (20,634,000) | (-20,634,000) | |
| Adjusted Outlays for comparability | ($604,600,575) | ($595,872,000) | (+$33,043,000) | |

## EXPLANATION OF PROGRAM

The appropriation "Conservation Operations," funds four Soil Conservation Service activities authorized by the Act of April 27, 1935, (16 U.S.C. 590-590f); and the Soil and Water Resources Conservation Act of 1977, (16 U.S.C. 2001-2009). These activities are designed to reduce erosion, solve soil and water management problems, bring about physical adjustments in land use, improve agriculture, and reduce damage caused by floods and sedimentation. Activities include:

1. Technical assistance - The Soil Conservation Service provides technical assistance to 2,955 conservation or special districts. These districts, formed under State enabling legislation and locally controlled, have within their boundaries about 99 percent of the farms and ranches in the Nation. Through these conservation districts, the Soil Conservation Service provides technical help to more than 1.8 million district cooperators, who are primarily farmers and ranchers, having land use and conservation problems. More than 1 million district cooperators receive help on an annual basis. Over 22,000 State and local units of government were assisted with problems of land use, conservation, or building and water resource developments during FY 1993.

   Conservation plans developed by landusers consist of their decisions to achieve conservation objectives, and contain soil and capability maps and other basic resource data interpreted for alternative uses and treatment.

Installation services are provided to cooperating land users to help them apply planned conservation systems. These services include site investigation, designs and specifications, construction plans, and layout of practices.

Technical assistance is currently being provided to implement the highly erodible land, wetland (Swampbuster), Wetland Reserve (WRP) and Conservation Reserve Program (CRP) provisions of the 1985 Food Security Act as amended by the Food, Agriculture, Conservation and Trade Act of 1990. SCS field technicians make the highly erodible land and wetland determinations and assist landusers in the preparation of conservation plans and application of practices needed to ensure compliance with the law. Producers had until December 31, 1989, to have an approved conservation plan developed on all highly erodible cropland in order to retain their eligibility for USDA farm program benefits. The approved conservation measures must then be installed by December 31, 1994. As of October 1993, 3.6 million highly erodible land determinations and 2.4 million wetland determinations had been made; conservation plans were completed for 142.1 million acres and conservation systems were applied on 98.2 million acres. A wetlands memorandum of understanding making the Soil Conservation Service the lead federal agency for delineating wetlands on agricultural lands was signed by the U.S.Fish and Wildlife Service, the Corps of Engineers, the Environmental Protection Agency and USDA in January, 1994. SCS will use the wetland inventories as the basis for making wetland delineations. SCS has provided technical assistance for the Wetland Reserve Program (WRP) in order to preserve and restore wetlands, improve wildlife habitat, and protect migratory waterfowl. Technical assistance has been provided by SCS to put about 50,000 acres of agricultural land into permanent easements since 1992, and assistance is being provided to enroll another 75,000 acres for the 1993 program. After the twelfth program sign up, the CRP has 36.5 million acres enrolled in 380,648 ten year contracts which reduce erosion by 698 million tons annually (18 tons per acre).

Technical services are also provided to individuals and groups participating in the Agricultural Conservation Program (ACP) for site selection, layout, or establishment of specified conservation practices; and to those farmers who enter into contracts under the CRP. Technical assistance for CRP was also provided to complete and/or modify conservation plans and to implement the plans under contracts signed in prior years. It is estimated that technical assistance is provided for the ACP on more than 80,000 farms and 4.5 million acres annually

This item also funds the inventory and monitoring, resource appraisal and program development activities of the Soil Conservation Service. Natural and related resource data, other than soil survey data, are collected and interpreted for National assessments, and provided to users for resource programming and planning decisions. In addition, special resource inventories are made of wind erosion conditions in the Great Plains, and for identification of important farmlands and areas with critical erosion rates. Nationwide appraisals of soil, water, and related resources are conducted on a periodic basis and future long-range conservation programs are developed to help USDA, soil and water conservation districts, and other Federal, State and local agencies identify the highest priority problems and the present and likely future demands on the soil, water, and related resources of the Nation.

Overall accomplishments under the Conservation Technical Assistance program are as follows:

| | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|
| Decisionmakers receiving technical services (000's) | 1,227 | 1,250 | 1,230 |
| Acres treated through conservation technical assistance (000's) | 62,112 | 63,500 | 62,200 |
| Tons of soil erosion reduced (000's) | 321,430 | 340,000 | 335,000 |

2. Soil surveys - Special investigations and interpretations are made to determine the kinds of soil, potential alternative uses, and their needs for full use and conservation. Each soil survey includes field mapping and necessary correlation, interpretation, investigations, and laboratory work. These surveys are conducted cooperatively with other Federal agencies, land grant universities, other State agencies, and local units of government. The published soil survey for a county or designated area includes maps and interpretations with explanatory information that is the foundation of resource planning and decision making for Federal, State, county, and local community programs. Special reports are prepared and released as needed for local uses. Current program emphasis is being placed on project mapping and soils interpretation assistance to private individuals and other Federal, State and local decision makers who received a diminished level of technical assistance during the acceleration of mapping on Food Security Act impacted land where soil survey information was not available. Emphasis is also being placed on designing mapping units and providing interpretations that will address water quality assessments and the wetland and highly erodible land provisions of the Food Security Act.

   Actual and projected accomplishments for the soil survey program are as follows:

| | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|
| Acres mapped annually by SCS (millions)..... | 27.9 | 26.3 | 25.7 |
| Soil surveys ready for publication (number). | 48 | 55 | 53 |

3. Snow survey and water forecasting - Snow survey and water forecasting provides a valuable service to irrigators and others who rely upon snow data and water supply forecasts in planning annual operations. More than 10 million acres of irrigated land in the Western States and Alaska are served by water supply forecasts. Although water supply forecasts are geared primarily to the needs of rural farm and ranch operators, they are used extensively by a wide variety of water management groups that have responsibility for flood control, recreation, fish and wildlife, power generation, municipal and industrial water supply, and water quality management.

4. Operation of plant materials centers - Plant materials centers are operated for testing, selection, and providing for the commercial production of plants for erosion control, water quality, special conservation purposes, and adaptation to unusual soil and site conditions. The work at the 26 centers includes cooperation with State and Federal agencies, commercial businesses, and seed and nursery associations to encourage release, production, and use of new or uncommon plant materials needed in soil and water conservation programs. Over 200 new conservation plant varieties from this program are in large scale use in combating the many problems encountered in a total program of soil, water, and related resource conservation. Twelve new conservation plants were released cooperatively by SCS and their partners for conservation purposes during FY 1993.

OIG Reports

| | | |
|---|---|---|
| 50600-2-AT | 9/92 | Cleanup Costs Under Selected interagency Agreements. |
| 10099-3-FM | 9/92 | Security of Computer Systems. |
| 10099-11-KC | 3/93 | Status Review Process for Conservation Plans. |
| 10099-14-KC | In Progress | Alternate Conservation Systems. |
| 03099-162-KC | Renumbered | Wetlands Provisions of FSA. (See below.) |
| 50600-2-KC | In Progress | Wetlands Provisions of FSA. (See below.) |
| 03600-25-KC | Cancelled | Survey of Wetland Reserve Program. |
| 50600-3-KC | In Progress | Conservation Compliance Reviews. |

GAO Reports

| | | |
|---|---|---|
| RCED-92-150528 | 2/93 | Review of Research and Extension Issues. |
| RCED-92-150040 | In Progress | Interim Review of 1995 Farm Bill. |
| 510829 | In Progress | Survey of Strategic Information Management Methodologies |
| 966406 | In Progress | Review of Federal Job Classification for Discrimination. |
| RCED-93-9 | 11/92 | Asbestos in Federal Buildings. |

JUSTIFICATION OF INCREASES AND DECREASES

(1) An increase of $26,676,533 for technical assistance (on the basis of available funds, an increase of $19,933,177) consisting of:

(a) An increase of $6,308,000 for Conservation Technical Assistance for a 1.6 percent general pay raise anticipated for fiscal year 1995.

(b) An increase of $5,931,533 for increased operating costs under the Conservation Technical Assistance program for the anticipated 2.6 percent increase in nonpay support costs associated with program operations in fiscal year 1995.

(c) A decrease of $36,285,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, SCS is reducing employment in this program from the FY 1993 base by 6.5 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(d) A decrease of $2,998,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $2,998,000.

Nature of Change. In order to achieve these savings, SCS will reduce discretionary expenses in this program by $2,998,000 in FY 1995, in areas such as travel, transportation of things, rent and communications, miscellaneous services, and supplies. There would be no significant impact on program operations as long as the agency is funded for the uncontrollable FY 1995 increased pay and inflationary costs.

(e) An increase of $28,120,000 in technical assistance for USDA conservation cost-share programs.

Need for Change. SCS technical assistance costs for supporting the various USDA conservation cost-share programs are currently budgeted under the ASCS appropriation accounts for these programs and transferred to SCS

under reimbursable agreements that vary by program. In FY 1994, ASCS will provide SCS with about $20.6 million of new budget authority to fund the technical assistance workload related to these programs on a reimbursable basis. The fiscal year 1995 budget proposes to fund this technical assistance as part of the resources provided by direct appropriation for the conservation technical assistance program. This funding change would add about $52 million in direct funding to this program, and reduce by the same amount SCS reimbursements and USDA appropriation requests for conservation cost-share programs. The increase of $28 million from the fiscal year 1994 level of funding for these programs is related budget proposals for cost sharing in 1995 and the number of farmers and ranchers who would participate in these programs. No new program sign-up is proposed for the Conservation Reserve program (CRP), the Wetland Reserve Program (WRP) would enroll an additional 300,000 acres, and the Agricultural Conservation Reserve (ACP) program would be significantly reduced.

Nature of Change. The additional funds requested would provide for sufficient technical assistance staffing to support an additional 300,000 acre enrollment in the Wetland Reserve Program. Technical assistance would also be provided as needed to support Conservation Reserve Program contracts signed in prior years.

(f) An increase of $15,600,000 for wetland identification, review, and certification required by provisions of the Food, Agriculture, Conservation and Trade Act of 1990.

Need for Change. SCS initiated a wetland inventory process in response to the Food Security Act of 1985 "Swampbuster" provisions. A producer could convert a wetland, but no violation occurred as long as an agricultural commodity was not planted on it. Violating the Swampbuster provisions of the FSA meant that a producer would lose all federal farm program benefits. The 1990 Farm Bill, FACTA, revised the Swampbuster provisions. Draining or manipulating a wetland in order to make planting an agricultural commodity possible became a Swampbuster violation. FACTA also required a periodic review, and certification of previously completed wetland determinations and provided for appeal rights during the certification process.

SCS had completed about 60 percent of the initial inventory when asked to undertake a quality review, update and certification of wetland delineations. The FACTA amendments were not fully initiated pending completion of the National Academy of Science review of the wetlands definition and procedures for delineating a wetland. Crucial wetland determinations continued on an as-requested basis, and it is estimated that determinations have currently been completed on about two-thirds of the nation's wetlands occurring on agricultural lands. Under the Memorandum of Agreement signed in January, 1994 by the four Federal agencies involved in the wetlands related work, the Administration has made SCS the single federal agency responsible for delineating wetlands on agricultural lands for both the Clean Water Act (CWA) and the 1985 and 1990 Farm Bills (FSA/FACTA). SCS must now proceed to fully implement the FSA/FACTA requirements by completing wetland delineations, certifying past wetlands delineations, maintaining a list of the certified wetlands, performing periodic reviews and updates, and providing this information to the Corps of Engineers to support CWA section 404 permitting requirements. Additional funds are needed because the new administration policy expands SCS's workload of on-site wetland delineations and appeals. FSA/FACTA concentrated primarily on wetlands and highly erodible cropland of USDA program participants. The expanded role includes all land that is intensively managed for agriculture.

Nature of Change. The additional $15.6 million and 265 additional staff years are necessary to accelerate wetland delineations on all agricultural lands and fully implement President Clinton's new wetland policy. The additional resources would be used to complete and certify remaining wetland determinations; to revise and/or certify existing determinations; to expand wetland determinations and on-site delineations on non-USDA program participants' agricultural lands; and to coordinate the delineation of wetlands with other agencies. The goal would be to complete the remaining new determinations and the required certifications of existing delineations by 1997. The periodic review and update process required by FACTA would be carried out on a five year cycle in accordance with the January 1994 agreement with EPA, the Corps of Engineers, and the Fish and Wildlife Service. Funds would be used to conduct the required training for personnel who perform wetland delineations and to cover additional workload related to appeals. Funds would also be used to purchase aerial photography for use in making and recording official wetland delineations.

(g) An increase of $6,500,000 for Conservation Technical assistance for database development investments to implement GIS technology and support USDA InfoShare projects to improve field office operations.

Need for Change. Most of the natural resource information used by SCS national, state and field offices to solve natural resource problems and recommend environmental policy is referenced to a geographic location on the ground. There is a need to change the way SCS and USDA collects, shares and uses this data by developing geographic databases of natural resource information in digital form to use in a geographic information system (GIS) at state and field offices. About 150 SCS field offices are using GIS. A fully implemented GIS database would provide more useable information for natural resource planning and decision making, environmental assessments and evaluations. It would improve efficiencies and effectiveness in delivering USDA programs and services, improve USDA's field office efficiency and interagency cooperation, provide better service to farmers and ranchers, and respond to public concerns about USDA field office structure. It would avoid having farmers and ranchers provide duplicate information to different USDA agencies and would reduce the resources consumed by each agency to maintain similar records of producer operations on the same land. GIS technology would also make it is possible for USDA to extract, share, and display natural resource, economic and other data that conforms to the national federal GIS database standards with other U.S. Government Departments and Agencies. USDA field offices would benefit from using this approach by automating the management of activities such as reconstitution of fields and locating and defining wetlands, and bring geographic resources information together for more accurate, consistent, and effective use. Digital orthophotography is a crucial up-front requirement needed to establish a standard map base for the GIS database. SCS and ASCS data in most offices is still kept manually on hard copies of aerial photographs, which are not correctly geographically referenced and cannot be used in a GIS. A digital orthophoto is a very accurate aerial photo image map which can be used either in a GIS or as a hard copy for mapping and digitizing. The digital orthophoto will serve as the standardized geographic information base map and primary digital map layer for collecting and referencing natural resource information. The orthophoto also helps solve problems such as automatically reconstituting farm field boundaries or ascertaining accurate and consistent acreage measurements. Database activities are an important component of GIS technology. Digitizing soil surveys is the other database component of this initiative which is explained under the Soil Survey justification (2)(e) below.

Nature of Change. The additional $6,500,000 would be used to initiate a program to create digital orthophotography of the conterminous U. S. under

the conservation technical assistance program. Another $2.5 million is requested under the soil survey program for contract costs needed to digitize soil surveys. The orthophotography component would cost SCS $6.5 million annually, and it is planned cooperatively with the U.S. Geological Survey. Most of the work would be contracted to the private sector. These funds would be used to procure approximately 57 million acres of orthophotography each year for high priority counties.

(h) An increase of $500,000 to provide technical assistance to Indian Reservations required under Section 2501(g) of the 1990 Food, Agriculture, Conservation, and Trade Act.

Need for Change. The Indian Self-Determination and Self-Governance Act, PL 94-638, Jan. 4, 1975, gave authority for carrying out the trust responsibilities of the U.S. Government to all government agencies, not just the Bureau of Indian Affairs. Section 2501(g) of the 1990 Food, Agriculture, Conservation, and Trade Act (FACTA) further defined the responsibilities for USDA, specifically SCS, ASCS and FmHA. These agencies were directed, if requested, to establish and staff a sub-office on reservations for a minimum of 1 day per week. Prior to the passage of FACTA, SCS was providing eighteen staff years of assistance on 9 reservations. At other reservations technical assistance was available if requested but generally from a town some distance from the reservation. Currently, many of the more than 310 reservations and 4 areas of trust land in the 48 contiguous states are taking steps to request assistance. The reservations encompass a land area of over 46 million acres. There are also 12 Alaska Native Regional Corporations and 217 Alaska Native Villages that are entitled to receive benefits. Potentially all of them could request staff assistance under the Section 2501(g) provision that SCS could not provide with current resources unless existing field offices on non-tribal lands were closed or operated on a part time basis. Based on the latest information, it is estimated that there will be requests to staff 152 tribal land field offices. The staff are needed to provide basic technical assistance for resource problem identification and conservation planning and application. The 1990 FACTA sets a minimum of 1 day per week if requested. However, travel time to the more remote reservations would require up to two additional days of travel time to provide one staff day per week in the tribal land field office.

Nature of Change. The additional $500,000 proposed for 1995 represents the annual cost of providing technical assistance needed to carry out field office operations one day a week on 35 to 40 additional reservations depending upon SCS employee travel time. It would add about 9 staff years on reservations to provide technical assistance to Indian farmers and ranchers.

(i) An increase of $3,000,000 for U. S. Climate Change activities.

Need for Change. The United States signed the Framework Convention on Climate Change (FCCC) at the United Nations Conference on Environment and Development in June 1992, and became the first industrialized nation to ratify the FCCC in October, 1992. The ultimate goal of the Climate Change Convention is to stabilize greenhouse gases in Earth's atmosphere at levels that will not dangerously upset the global climate system. This should be done within a time frame that allows ecosystems to adapt naturally to climate change, ensures that food production is not threatened, and enables economic development to proceed in a sustainable manner. The U.S. Climate Change Action Plan lists a number of actions in all sectors of the economy that the U.S. will take in order to reduce national greenhouse gas emissions to 1990 levels by the year 2000. The Department of Agriculture is a full partner in the coordinated Federal effort to meet U.S. obligations under this international agreement. The

additional $3 million proposed for 1995 supports the Soil Conservation Service's technical assistance needed to help producers reduce agricultural emissions of methane and nitrous oxide to the Earth's atmosphere. SCS will spend an estimated $1 million each for climate change actions #38 and #39 in fiscal year 1994.

Nature of Change. The SCS is cooperating in three initiatives described in the U.S. Climate Change Action Plan:

Action #17 - Improve Efficiency of Fertilizer Nitrogen Use. SCS and ARS will launch a new partnership with American producers to improve the efficiency of fertilizer use, which will result in lower emissions of nitrous oxide from microbial activity in the soil and lower carbon dioxide emissions from electricity and natural gas consumption during fertilizer manufacturing. The two-phase program builds on existing research and modeling work in ARS, and includes demonstration projects and an extensive technical information transfer and education program to ensure producer adoption of improved N management practices. Reductions in nitrogen fertilizer use resulting from this program are expected to be within the 10 - 30 percent reduction proposed in S. 1114 (reauthorization of the Clean Water Act).

Action #38 - Expand AGSTAR Program with Livestock Producers. AGSTAR is an existing EPA/USDA voluntary pollution prevention program with the livestock industry (primarily dairy and swine facilities) to reduce methane emissions to the atmosphere. Under this program producers will install methane capture-and-use equipment for on-farm power production. AGSTAR encourages the recovery and use of methane only where it is profitable to do so. SCS will develop standards and specifications for the methane capture systems, and provide technical assistance to producers in 20 states to install and utilize the technology.

Action #39 - Improve Ruminant Productivity and Product Marketing. SCS will continue work with ARS and EPA on demonstration projects and outreach programs targeted to reduce methane emissions from beef and dairy cattle, which are responsible for a significant percentage of methane emissions per year. SCS efforts will focus on improving grazing lands management.

(2) An increase of $1,354,000 for Soil Surveys and Investigations (on the basis of available funds, an increase of $256,055) consisting of:

(a) An increase of $836,000 for Soil Surveys for a 1.6 percent general pay raise anticipated for fiscal year 1995.

(b) An increase of $771,000 for increased operating costs under the Soil Survey program for the anticipated 2.6 percent increase in nonpay support costs associated with program operations in fiscal year 1995.

(c) A decrease of $2,313,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, SCS is reducing employment in this program from the FY 1993 base by 3.0 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service

center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(d) A decrease of $440,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $440,000.

Nature of Change. In order to achieve these savings, SCS will reduce discretionary expenses in this program by $440,000 in FY 1995, in areas such as travel, transportation of things, rent and communications, miscellaneous services, and supplies. There would be no significant impact on program operations as long as the agency is funded for the uncontrollable FY 1995 increased pay and inflationary costs.

(e) An increase of $2,500,000 for Soil Surveys to support the Natural Resources Database (GIS) budget initiative.

Need for Change. The Natural Resources Databases initiative requires a digital database that will provide benefits to all parties who are involved with USDA field office operations. Orthophoto maps requested under the conservation technical assistance program will provide the accurate reference base needed for geographic referenced data sharing and soil survey is the most important basic data set needed before computer assisted conservation or resource planning can take place. Soils information has been gathered for many years and is primarily contained in published soil survey manuscripts and maps as well as on maps and notes for soil surveys now underway. New soil surveys are being digitized, but only about 75 of the completed surveys are in the digital form needed for Geographic Information Systems. Completed soil surveys that are 25 years old generally must be updated before they are ready to digitize, but more recently completed soil surveys are ready to digitize. All the soil survey information needs to be converted into a digital format to achieve the USDA InfoShare objective on a timely basis. Digitizing the soil surveys will also provide future program benefits because it is the most efficient and effective method to update and maintain soil survey data. The SCS has been assigned national leadership for all soils geographic data, coordinating standards and practices between all Federal and state agencies, local government, and other interested parties (OMB Circular A-16).

Nature of Change. The additional $2,500,000 would be used to begin the process of digitizing published and ongoing soil surveys. Soil surveys compiled and digitized for the country would be accelerated at this funding level Compilation and quality control would be done by SCS staff and the additional funds would be used for digitizing contracts.

(3) A decrease of $64,000 in Snow Survey and Water Forecasting activities (on the basis of available funds, a decrease of $201,361) consisting of:

(a) An increase of 50,000 for Snow Survey and Water Forecasting for a 1.6 percent general pay raise anticipated for fiscal year 1995.

(b) An increase of $86,000 for increased operating costs under the Snow Survey and Water Forecasting program for the anticipated 2.6 percent increase in

nonpay support costs associated with program operations in fiscal year 1995.

(c) A decrease of $161,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, SCS is reducing employment in this program from the FY 1993 base by 2.6 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(d) A decrease of $39,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $39,000.

Nature of Change. In order to achieve these savings, SCS will reduce discretionary expenses in this program by $39,000 in FY 1995, in areas such as travel, transportation of things, rent and communications, miscellaneous services, and supplies. There would be no significant impact on program operations as long as the agency is funded for the uncontrollable FY 1995 increased pay and inflationary costs.

(4) A decrease of $144,000 in Plant Materials Centers activities (on the basis of available funds, a decrease of $761,192) consisting of:

(a) An increase of $69,000 for Plant Materials Centers for a 1.6 percent general pay raise anticipated for fiscal year 1995.

(b) An increase of $117,000 for increased operating costs under the Plant Materials Centers program for the anticipated 2.6 percent increase in nonpay support costs associated with program operations in fiscal year 1995.

(c) A decrease of $260,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, SCS is reducing employment in this program from the FY 1993 base by 2.9 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the

potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(d) A decrease of $70,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $70,000.

Nature of Change. In order to achieve these savings, SCS will reduce discretionary expenses in this program by $70,000 in FY 1995, in areas such as travel, transportation of things, rent and communications, miscellaneous services, and supplies. There should be no significant impact on program operations as long as the agency is funded for the uncontrollable FY 1995 increased pay and inflationary costs

## SUMMARY OF INCREASES AND DECREASES - PROPOSED LEGISLATION

| Item of Change | 1995 Current Law | 1995 Program Changes | 1995 President's Request |
|---|---|---|---|
| Conservation Technical Assistance... | $549,876,000 | $0 | $549,876,000 |
| ASCS Salaries and Expenses..... | 0 | 26,593,000 | 26,593,000 |
| Soil Surveys..... | 75,258,000 | 0 | 75,258,000 |
| Snow Survey and Water Forecasting... | 5,756,000 | 0 | 5,756,000 |
| Operation of Plant Materials Centers | 8,745,000 | 0 | 8,745,000 |
| Total Available..... | $639,635,000 | $26,593,000 | $666,228,000 |

Explanation of Proposed Legislation

This legislation would transfer $26,593,182 to the Conservation Operations program to implement the conservation cost-share administration portion of the USDA reorganization proposed by the Secretary of Agriculture in conjunction with the National Performance Review.

## PROJECT STATEMENT - PROPOSED REORGANIZATION

| | 1994 Estimated | | Increase or | 1995 Estimated | |
|---|---|---|---|---|---|
| | Amount | Staff Years | Decrease | Amount | Staff Years |
| Natural Resources Conservation Service: | | | | | |
| Conservation Operations: | | | | | |
| From Farm Service Agency: | | | | | |
| *ASCS Salaries & Expenses | ($33,977,000) | 80 | +$26,593,000 | $26,593,000 | 80 |
| *Conservation Reserve Prog | (1,743,274,000) | -- | (-8,842,000) | (1,752,216,000) | -- |
| Wetland Reserve Program. | 66,675,000 | -- | +211,425.000 | 278,100,000 | -- |
| Agriculture Conservation Program..... | 194,650,000 | -- | -94,650,000 | 100,000,000 | -- |
| Colorado Salinity Prog.. | 13,783,000 | -- | -5,389,000 | 8,394,000 | -- |
| Water Bank Program..... | 8,000,000 | -- | -- | 8,000,000 | -- |
| Emergency Conservation Program..... | 0 | -- | +3,000,000 | 3,000,000 | -- |
| ECP 1994 Supplemental.. | 25,000,000 | -- | -25,000,000 | 0 | -- |
| Forestry Incentives Prog | 12,820,000 | -- | -6,195,000 | 6,625,000 | -- |
| Total available..... | $320,928,000 | 80 | +$109,784,000 | $430,712,000 | 80 |

*Amounts in parentheses are non-add's.

## EXPLANATION OF PROGRAM

Natural Resources Conservation Service (NRCS) will administer the functions dealing with the conservation cost share programs previously carried out by the Agricultural Stabilization and Conservation Service. The change is being proposed to implement the USDA reorganization proposed by the Secretary of Agriculture in conjunction with the National Performance review. Program delivery would continue to function as in the past with overall program direction being set at the national level and designated committees acting at the state and local levels on specific practices for each cost share program.

The $26.6 million and the national and state staff (about 80 staff years) would be transferred from the Farm Service Agency (FSA) to NRCS to administer the conservation cost share programs. About $22.1 million of the transferred funds would be used to pay the FSA county committees to administer the conservation cost share programs at the local level. NRCS would continue to provide the technical assistance consistent with current practice.

Soil Conservation Service
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995
CONSERVATION OPERATIONS

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS |
| ALABAMA..... | $11,243,925 | 228 | $11,638,140 | 220 | $11,998,810 | 220 |
| ALASKA..... | 2,701,790 | 40 | 2,703,110 | 37 | 2,786,880 | 37 |
| ARIZONA..... | 5,936,964 | 79 | 6,786,880 | 84 | 6,997,210 | 84 |
| ARKANSAS..... | 10,793,250 | 216 | 10,675,980 | 199 | 11,006,830 | 199 |
| CALIFORNIA..... | 15,485,049 | 274 | 15,707,550 | 259 | 16,194,330 | 259 |
| COLORADO..... | 13,840,653 | 288 | 14,265,400 | 277 | 14,707,490 | 277 |
| CONNECTICUT..... | 2,136,818 | 38 | 2,177,420 | 36 | 2,244,900 | 36 |
| DELAWARE..... | 1,589,092 | 24 | 1,633,880 | 23 | 1,684,510 | 23 |
| FLORIDA..... | 8,491,859 | 117 | 8,569,290 | 110 | 8,834,860 | 110 |
| GEORGIA..... | 13,116,840 | 265 | 13,369,300 | 251 | 13,783,620 | 251 |
| HAWAII..... | 3,738,776 | 54 | 3,518,370 | 47 | 3,627,410 | 47 |
| IDAHO..... | 9,694,040 | 188 | 10,194,140 | 185 | 10,510,060 | 185 |
| ILLINOIS..... | 15,289,313 | 316 | 16,342,920 | 315 | 16,849,390 | 315 |
| INDIANA..... | 13,406,027 | 270 | 13,387,250 | 251 | 13,802,130 | 251 |
| IOWA..... | 21,568,369 | 475 | 22,686,930 | 465 | 23,390,010 | 464 |
| KANSAS..... | 19,259,706 | 419 | 20,064,120 | 406 | 20,685,910 | 405 |
| KENTUCKY..... | 13,657,202 | 278 | 13,905,650 | 263 | 14,336,590 | 263 |
| LOUISIANA..... | 8,145,742 | 152 | 9,759,630 | 169 | 10,062,080 | 169 |
| MAINE..... | 3,122,509 | 58 | 3,188,210 | 55 | 3,287,010 | 55 |
| MARYLAND..... | 5,464,611 | 107 | 6,041,050 | 110 | 6,228,260 | 110 |
| MASSACHUSETTS... | 2,662,340 | 48 | 2,751,320 | 47 | 2,836,580 | 47 |
| MICHIGAN..... | 11,366,216 | 185 | 10,458,450 | 159 | 10,782,560 | 159 |
| MINNESOTA..... | 13,440,375 | 252 | 14,508,820 | 253 | 14,958,450 | 253 |
| MISSISSIPPI..... | 11,744,746 | 260 | 12,227,260 | 253 | 12,606,190 | 253 |
| MISSOURI..... | 19,478,896 | 380 | 19,935,710 | 362 | 20,553,520 | 361 |
| MONTANA..... | 15,410,202 | 325 | 16,121,920 | 317 | 16,621,540 | 317 |
| NEBRASKA..... | 16,205,833 | 346 | 16,665,240 | 332 | 17,181,700 | 332 |
| NEVADA..... | 3,448,922 | 68 | 3,716,850 | 68 | 3,832,040 | 68 |
| NEW HAMPSHIRE... | 2,051,042 | 39 | 2,151,960 | 38 | 2,218,650 | 38 |
| NEW JERSEY..... | 3,182,830 | 57 | 3,486,810 | 58 | 3,594,870 | 58 |
| NEW MEXICO..... | 8,616,158 | 161 | 8,433,820 | 147 | 8,695,190 | 147 |
| NEW YORK..... | 9,560,555 | 170 | 9,916,230 | 164 | 10,223,540 | 164 |
| NORTH CAROLINA.. | 11,298,300 | 215 | 11,637,920 | 207 | 11,998,580 | 207 |
| NORTH DAKOTA.... | 12,499,824 | 239 | 12,899,750 | 230 | 13,299,520 | 230 |
| OHIO..... | 11,662,540 | 218 | 12,521,070 | 219 | 12,909,100 | 219 |
| OKLAHOMA..... | 13,332,397 | 289 | 14,049,290 | 284 | 14,484,680 | 284 |
| OREGON..... | 9,185,518 | 162 | 9,502,060 | 157 | 9,796,530 | 157 |
| PACIFIC BASIN... | 959,182 | 18 | 1,167,600 | 21 | 1,203,780 | 21 |
| PENNSYLVANIA.... | 9,418,968 | 179 | 9,585,420 | 169 | 9,882,480 | 169 |
| PUERTO RICO..... | 3,197,953 | 54 | 3,316,510 | 52 | 3,419,290 | 52 |
| RHODE ISLAND.... | 927,308 | 15 | 949,970 | 14 | 979,410 | 14 |
| SOUTH CAROLINA.. | 6,673,141 | 143 | 7,086,780 | 142 | 7,306,400 | 142 |
| SOUTH DAKOTA.... | 10,064,563 | 195 | 10,212,530 | 184 | 10,529,020 | 184 |
| TENNESSEE..... | 12,184,670 | 240 | 12,676,250 | 233 | 13,069,090 | 233 |
| TEXAS..... | 38,185,395 | 739 | 39,435,200 | 707 | 40,657,310 | 701 |
| UTAH..... | 6,273,474 | 108 | 6,375,880 | 102 | 6,573,470 | 102 |
| VERMONT..... | 2,748,767 | 53 | 2,881,570 | 52 | 2,970,870 | 52 |
| VIRGINIA..... | 9,728,554 | 196 | 10,166,820 | 191 | 10,481,890 | 191 |
| WASHINGTON..... | 10,755,103 | 208 | 11,456,740 | 206 | 11,811,790 | 206 |
| WEST VIRGINIA... | 5,716,229 | 127 | 6,624,850 | 137 | 6,830,160 | 137 |
| WISCONSIN..... | 11,989,259 | 255 | 12,373,520 | 245 | 12,756,980 | 245 |
| WYOMING..... | 5,892,104 | 116 | 6,353,790 | 117 | 6,550,700 | 117 |
| CHESTER NTC..... | 2,784,474 | 38 | 2,690,360 | 34 | 2,773,740 | 34 |
| FORT WORTH NTC.. | 13,565,521 | 204 | 13,686,580 | 197 | 14,110,730 | 197 |
| LINCOLN NTC..... | 10,942,201 | 182 | 11,047,860 | 175 | 11,390,240 | 175 |
| PORTLAND NTC.... | 6,223,880 | 75 | 6,607,290 | 75 | 6,812,050 | 76 |
| NATIONL HDQTRS.. | 50,838,284 | 403 | 58,113,101 | 382 | 59,914,070 | 371 |
| Total Available or Estimate.... | $592,898,259 | 10,848 | $620,408,321 | 10,492 | $639,635,000 | 10,473 |

# CONSERVATION OPERATIONS

## STATUS OF PROGRAM

Authority and Mission: The Soil Conservation Service (SCS) is a technical agency of the United States Department of Agriculture (USDA). The agency was established by Public Law 74-46 on April 27, 1935, (16 U.S.C. 590a-590f) to carry out a continuing program of soil and water conservation on the private lands of the Nation. The current mission of the agency is to provide leadership and administer programs to help people conserve, improve, and sustain our natural resources and environment.

Since 1983 the conservation activities of the Soil Conservation Service have been guided by the priorities and objectives as set forth in the National Conservation Program (NCP) which was prepared in response to the provisions of the Soil and Water Resources Conservation Act of 1977 (RCA) (Public Law 95-192). The long-term objectives of the program are designed to maintain and improve the soil, water, and related resources of the Nation's nonpublic lands by:

- -- Reducing excessive soil erosion.
- -- Reducing agricultural nonpoint source pollution of water.
- -- Improving irrigation efficiency.
- -- Making more effective use of water.
- -- Reducing upstream flood damages.
- -- Improving range condition.

SCS continues to play a major role in USDA's implementation of the conservation provisions of the Food Security Act (FSA) of 1985 (Public Law 99-198) and the Food, Agriculture, Conservation and Trade Act (FACTA) of 1990 (Public Law 101-624). The conservation provisions include:

1. Highly erodible land conservation (16 U.S.C. 3811-3813);
2. Wetland conservation (16 U.S.C. 3821-3823);
3. Environmental Conservation Acreage Reserve Program (16 U.S.C. 3831-3845);
   - Conservation Reserve Program
   - Wetland Reserve Program
4. Conservation easements (7 U.S.C. 1997).

Under these provisions, SCS is responsible for defining highly erodible lands, wetlands, and converted wetlands, and for assisting farmers develop and install conservation plans and conservation systems as a basis for Conservation Reserve Program contracts or for conservation compliance purposes. The law required that all producers have an approved conservation plan on all highly erodible cropland by December 31, 1989, in order to continue their eligibility for USDA farm program benefits. Producers then have until December 31, 1994, to install the approved conservation systems. SCS will assign highest priority during this period to providing the technical assistance needed to help producers comply with the provisions of the law. In addition, technical assistance will be provided in support of Environmental Conservation Acreage Reserve Program sign-ups authorized by the 1990 Farm Bill.

Cooperation with Conservation Districts: USDA and SCS have entered into memoranda of understanding with 2,955 conservation or special districts to establish a basis for a cooperative local-Federal conservation partnership. Under the terms of these agreements, SCS provides technical assistance through each district to assist farmers, ranchers, rural communities, and others to plan, apply, and maintain conservation treatment on the land. These districts are legal subdivisions of State government organized for the purpose of developing and carrying out local conservation programs to protect, conserve, and maintain the natural resource base of the Nation. Officials of conservation districts are local leaders in the development of appropriate land use and conservation treatment on private and other lands within district boundaries. They solicit local, State, and Federal participation to help carry out locally adapted conservation programs. Over the years, they have developed cooperative ways of financing conservation programs that

provide numerous public ivate b ts. State and local ap propriations of funds for conservation c t progr ivities totaled approx mately $533.2 million in FY 1993. Thi about $ million more than FY 1992 funding levels.

Cooperation with Other Agencies: Many ederal and State agencies rely upon the technical expertise unique to SCS to plan and implement programs which impact rural residents and/or resources. Some examples are the Agricultural Conservation Program, the Colorado Salinity Control Program, the Conservation Reserve Program, and the experimental Rural Clean Water Program of the Agricultural Stabilization and Conservation Service; the Surface Mine Control and Reclamation Programs of the Department of the Interior; the Coastal Zone Management Program of the Department of Commerce; and the Chesapeake Bay Agreement, National Estuary Program and Clean Lakes Program of the Environmental Protection Agency. Memoranda of Understanding (MOU) have been signed with EPA for nonpoint source technical cooperation, with Extension Service for water quality data and training, and with ARS and the Geological Survey addressing cooperation in the area of water quality research.

SCS is recognized internationally as a world leader for resource conservation technology delivery, soil surveys rosion control and water management activities. SCS completed 235 te al assignments to 45 foreign countries and carried out the following objecti rovided international conservation assistance, shared soil conservat chnology with other countries that have similar soil and conservation prot hrough scientific and technical exchanges, and participated in meetings of in ional technical and professional societies. SCS also provided oppor ties for 284 foreign nationals from 37 countries to gain a better understanding of soil and water conservation activities in the United States. These representatives visited various locations to study conservation programs in order to transfer applicable methods to their home counties.

Information Services: SCS has a proactive and flexible information and public affairs program that keeps the Nation fully informed about 1) increasing complex conservation and environmental requirements of current farm law, 2) voluntary solutions to environmental concerns on farms and ranches and in rural and urban communities and 3) SCS inventories of resource conditions and trends.

Current information initiatives target the critical issues of conservation compliance, wetlands conservation. ater management (quality and quantity), and farming's revolution in crop residue management.

SCS's Office of Public Affairs in Washington D.C. and the state and regional informat n officers have accelerated their partnership building with other governmen agencies, with private industry, and with the media. These partnersh s are helping us meet the diverse information needs of the American people, a providing us with essential feedback about the quality of our informatio program.

The Earth Team, SCS's volunteer program, was recently combined into the Office of Public Affairs. The Earth Team currently has 12,000 volunteers who donate over 500,000 hours to assist operations in 2,000 SCS offices.

This appropriation is further divided into subappropriation items as follows:

## CONSERVATION TECHNICAL ASSISTANCE

Current Activities: Conservation technical assistance provides the basic foundation supporting cooperative and complementary conservation programs involving Federal, State, and local units of government, organizations, and private citizens. Many times, this assistance serves as the initial USDA contact with land users who participate in other USDA, State, and local conservation programs. Assistance is provided by trained resource conservation and management specialists. These specialists inventory and interpret site-specific information about soil, plant, water, and other physical conditions to determine feasible

alternative land uses and conservation treatment alternatives. This information is used in assisting land users to make decisions about land use and the conservation treatment systems that are needed to protect the resources from excessive deterioration. After land users make appropriate conservation use and treatment decisions, they receive technical help as needed, to apply the planned conservation treatment. This assistance may include design, layout, and on-site installation services to assure that the applied conservation treatment is of a high quality and serves the intended purpose. These services require professional skills from a variety of specialized resource management disciplines to achieve an interdisciplinary approach under a wide range of land ownership and use conditions. At the national level, SCS specialists develop and maintain standards for conservation treatment, provide technology transfer, and serve as the Federal government's expert in matters concerning the conservation use and treatment of the Nation's private lands.

Overall, SCS provided 1,227,216 technical services to land users and units of government for conservation purposes in FY 1993. As a result of these services, land users made conservation planning decisions on about 16 million acres of land and 562,906 land users applied one or more conservation practices to improve soil, water, and related resources on 63.3 million acres of non-Federal lands. The estimated value of the practices applied to improve this acreage was more than $2 billion. Some of the long-term public and private benefits resulting from conservation planning and application assistance include reduced erosion and sedimentation, cleaner water, improved use of irrigated water, reduction of health hazards, improved fish and wildlife habitat, improved aesthetic qualities, flood prevention, and sustained food and fiber production at reasonable cost.

Summary of Progress: A breakdown of the total acres of non-federal lands treated with SCS technical assistance in FY 1993 follows:

Non-Federal Land Treated with SCS Technical Assistance
(Acres in Millions)

| Land Category | Total Acres | Acres Treated | |
|---|---|---|---|
| | | Number | Percent of Total |
| Cropland..... | 422.8 | 28.8 | 6.8 |
| Rangeland..... | 401.7 | 25.4 | 6.3 |
| Pastureland..... | 130.0 | 4.3 | 3.3 |
| Woodland..... | 394.4 | 2.6 | 0.6 |
| Other Land..... | 59.9 | 2.2 | 3.7 |
| Total..... | 1,408.8 | 63.3 | 4.5 |

Examples of Current Activities and Progress:

Conservation Compliance on Highly Erodible Land: The conservation provisions of the Food Security Act directly impact persons who produce agricultural commodities on highly erodible land or converted wetlands and participate in certain USDA programs. SCS has defined highly erodible land as those soils that have an erodibility index of 8 or more. Using this criteria, 118 million acres of cropland and 235 million acres of noncropland that has a potential to be cropped is classified as highly erodible land. However, because highly erodible land is determined on a field basis, an additional 42 million acres of non-highly erodible cropland is also impacted. Between 1988 and 1995 SCS estimates that only 5 million acres of the highly erodible noncropland that has a potential for conversion to cropland will actually be converted. Additionally, about 5 million acres of the 70 million acres of wetlands in the United States will be affected by the wetland conservation provisions. Thus, these provisions impact 160 million acres or 38 percent of the nation's farmland.

As of September 30, 1993, 3.6 million highly erodible land determinations were completed. Of this total, 1.8 million were positive determinations and included over 149 million acres of highly erodible lands. 1.6 million conservation plans have been developed on 142.1 million acres of highly erodible lands to meet the

December 31, 1994, deadline in the law. By the end of FY 1993, 69.2 percent of the conservation plans on highly erodible lands had been installed.

Wetlands Conservation (Swampbuster): The target date for completing the 3.1 million wetland determinations has been delayed due to inconsistent wetland definitions that have been used by the Corps of Engineers (COE), the Environmental Protection Agency (EPA), the Fish and Wildlife Service (FSW) and the SCS to administer the different programs that impacted farmland. At the end of FY 1993, SCS had completed 2.4 million wetland determinations of which 0.9 million were positive. Again, there is a continuing wetland related workload anticipated beyond the initial goal date. Activities will include determinations required for new participants, processing minimal effect exemptions, documenting the location and impacts of previously installed drainage systems, and completion of wetland inventories.

Wetland inventories covering cropland and adjacent lands have been initiated in 45 states. Inventories have been completed in more than 950 counties in 45 states. SCS uses the wetland inventory approach in areas with concentrations of both wetlands and USDA program participants as the basis for making wetland determinations. This improves overall efficiency and quality of determinations. Wetland inventories also provide a consistent basis for making wetland determinations for new producers in future years.

On August 24, 1993, the Clinton Administration proposed a comprehensive plan to improve the Federal wetlands program in response to public concerns that the Federal government needed to modify its wetland program by making it fairer and more effective for producers and other taxpayers. The proposed plan incorporates a cooperative working agreement between the COE, EPA, FWS and SCS that makes SCS the lead agency for determining wetlands on agricultural lands. The agreement will reduce duplication and inconsistencies among federal agencies. However, it will require SCS to devote more time identifying, evaluating, delineating, and processing appeals for these wetlands in order to carry out program responsibilities for both the Clean Water Act (404) and the Food Security Act (FSA/FACTA). The expanded responsibilities include making on-site delineations of all wetlands that have the potential of being altered on all lands intensively managed for agriculture (cropland, orchards, tree farms, etc), processing 404 and FSA/FACTA wetland appeals, and providing oversight to private sector entities that make environmental assessments and wetland determinations to ensure consistency and quality of wetland determinations and delineations.

Conservation Reserve Program: The Conservation Reserve Program (CRP) offers long-term rental payments and cost-share assistance to farm owners or operators to retire existing highly erodible and environmentally sensitive cropland from crop production for 10 years. A protective vegetative cover of grass or trees on the converted lands will reduce soil erosion and improve water quality and enhance wildlife habitat. No more than 25 percent of a county's cropland will be accepted for participation without a waiver from the Secretary. The 1990 Farm Bill expanded the criteria used for determining CRP land.

Over the life of the program, the 36.5 million acres (380,648 contracts) enrolled in CRP after the 12th program sign-up will result in a soil loss reduction of 698 million tons annually.

The following provides a summary of the current status of the program:

| | 12th sign-up | Cumulative |
|---|---|---|
| Total Bids Received | 37,119 | 535,221 |
| Total Accepted Bids | 20,121 | 380,648 |
| Total Acres enrolled | 1,132,459 | 36,528,410 |
| Total Tree Area enrolled | 129,085 | 2,475,844 |
| Average Size of Contract in Acres | 56 | 96 |

Wetland Reserve Program (WRP): The Wetland Reserve Program allows individuals to enroll farmed wetlands or converted wetlands in exchange for long-term or permanent

easements. SCS provides technical assistance to individuals submitting WRP bids. SCS assistance is provided for determining program eligibility, developing a Wetlands Conservation Plan, for engineering and environmental design, construction and wetland establishment review. In 1993, SCS provided technical assistance to landowners in nine pilot states where nearly 50,000 acres were enrolled in the first WRP sign-up.

Agricultural Conservation Program (ACP): SCS provides technical assistance to ACP participants for planning, design, layout, supervision, and certification that the practice meets SCS standards and specifications. In addition to regular ACP assistance, the Water Quality Improvement Program (WQIP) was implemented in FY 1993 in 85 counties in 25 states. Applications were received to install 18,400 water quality measures on 1.8 million acres.

Rural Abandoned Mine Program (RAMP): SCS provides technical and financial assistance through 5-10 year contracts with land users. The objective of RAMP is to evaluate, design, and install needed conservation treatments to reclaim soil and water resources on rural lands adversely affected by past coal-mining practices. RAMP was authorized by Section 406 of the Surface Mining Control and Reclamation Act of 1977, P.L. 95-87, as amended by the Abandoned Mine Reclamation Act of 1991, P.L. 101-508. Land users in 20 states have submitted 4,552 program applications (on 106,332 acres) for assistance under the program. New RAMP contracts were signed with 105 land users in FY 1993 obligating $8.4 million. To date, SCS has signed a total of 1,185 contracts for the reclamation of 16,192 acres, obligating $109 million. Accomplishments to date include 13,161 acres reclaimed, 2,638 health and safety hazards eliminated, and 1,152,740 tons of soil erosion prevented annually. water quality has been improved in 60,000 acres of lakes and 777 miles of streams. Funds for the operation of RAMP are transferred to SCS by the U.S. Department of the Interior, from funds appropriated from the Abandoned Mine Reclamation Trust Fund. Coal miners pay 35 cents per ton of coal mined from surface mines and 15 cents per ton of coal from underground mining into this fund.

Colorado River Basin Salinity Control Implementation: The 1984 amendments to the Colorado River Basin Salinity Control Act, in Public Law 98-569, gave USDA a separate authority for developing and implementing a voluntary and cooperative on-farm salinity control program.

The Colorado River Salinity Control (CRSC) program objectives are to reduce salt loading in order to enhance and protect the quality of water available in the Colorado River for use in the United States and Mexico (Public Law 93-320, Colorado River Basin Salinity Control Act). Key provisions of the program are the nonFederal cost-share reimbursement requirements from the hydro-electric power revenues of the Upper and Lower Colorado River Basin development funds and the authority to cost-share with irrigation districts and canal companies. Major SCS activities include development of project plans, preparation of on-farm participants for application of salinity reduction plans, and providing technical assistance to participants for application of salinity reduction practices with emphasis on irrigation water management.

Implementation continued in the Grand Valley, McElmo Creek and Lower Gunnison projects in Colorado; Uinta Basin project in Utah; and the Big Sandy River project in Wyoming. A total of 363 contracts involving $13,783,000 in technical and financial assistance were approved in 1993. Annual salt load reduction for FY 1993 resulting from salinity reduction practice practices totaled 36,450 tons for the five projects. Joint planning with the Bureau of Reclamation on the Price-San Rafael project in Utah is being finalized. Pre-implementation planning included completing a salinity investigation in the San Juan River Basin in New Mexico and the development of the final environmental impact statement for the Moapa Valley project in Nevada.

Water Quality: SCS, Extension Service (ES), and the Agricultural Stabilization and Conservation Service (ASCS) support the USDA Water Quality Initiative (WQI) through education, technical and financial assistance. Nonpoint source hydrologic unit

areas, water quality demonstration projects, regional project initiatives, and Agricultural Conservation Program water quality special projects are the principal assistance activities of the USDA WQI plan.

Nonpoint Source Hydrologic Unit Area Assistance (HUA). HUA's are selected to remedy state identified water quality problems. Projects are located in areas where impairment of water quality by agricultural nonpoint sources is significant. The projects are coordinated with state management programs developed under Section 319 of the Water Quality Act of 1987. SCS, ASCS and ES develop detailed plans of work for HUA's. Seventy-four areas have been selected and are under implementation. SCS water quality specialists are delivering planning and application assistance to farm and ranch operators, and SCS continued to upgrade and transfer water quality technology and information to cooperators as it was made available from technology development and data base efforts. ASCS provided financial assistance to agricultural operators to install planned water quality practices. SCS implemented a water quality project evaluation for selected HUA's. The water quality progress reporting system in each HUA was updated to capture water quality benefits to include nutrient and pesticide management indicators. Computer hardware and Field Office Computer System software was installed to inventory and collect natural resource and management activities by land tract and progress was made in using Agricultural Research Service (ARS) water quality computer simulation models to estimate HUA water quality benefits.

Water Quality Demonstration Projects. The demonstration projects represent geographic areas with specific combinations of agricultural activities and water resource conditions that impact water quality. Treatment practices are developed to remedy water quality problems, and through the farm demonstration process, these practices are expanded to other areas with similar agricultural and water quality conditions. SCS has worked in cooperation with ES, ARS, ASCS, the Cooperative State Research Service and the Economic Research Service to develop a comprehensive plan of work for the demonstration projects. Sixteen projects have been implemented and are providing assistance to land operators. Data has been gathered and compiled to establish a water quality baseline from which progress can be measured in meaningful terms such as the adoption of water quality practices in the immediate and adjacent areas, and an evaluation of the original eight demonstration projects started in FY 1990 is on-going to determine what is being accomplished and how to improve program delivery of the Water Quality Initiative. To assist in this evaluation, SCS and ES entered into a contract with the University of Wisconsin to conduct farm owner/operator surveys to determine adoption rates of water quality practices among USDA program participants and nonprogram participants and assess the effectiveness of water conservation practices in a competitive, for profit, farm setting. ASCS provided financial assistance to assist agricultural operators in the adoption of water quality practices in demonstration projects.

Regional Project Initiatives. Regional projects include the Chesapeake Bay, the Puget Sound, Long Island Sound, Gulf of Mexico, Great Lakes, Land and Water 201, Lake Champlain and the National Estuaries Programs. USDA involvement in these projects is centered on reducing agricultural nonpoint pollution through ongoing programs that provide education, technical, and financial assistance to individual farmers, ranchers, and communities. A coordinated approach to monitoring and evaluation has been undertaken to determine the level of success of ongoing programs and to improve future efforts. The process focuses on reductions in pollutant loading; model extension of load reduction effects below the root zone and beyond the edge of the field; and measured change in the conditions of surface and groundwater conditions. It also includes an assessment of practices installed and the effects of these activities upon production agriculture. SCS involvement in the Regional Project Initiative included participation with state and local water quality agencies, other Federal agencies, and international representatives in developing overall plans of action to meet the nonpoint source water quality needs in the project areas, and technical assistance provided to agricultural operators in implementing the completed plans. SCS accelerated technical assistance to plan, design, and implement best management practices to protect both surface and ground water by controlling nonpoint source point pollution from agricultural and urban

lands and control excess animal wastes; provided technical standards and specifications for state cost-share programs; provided technical supervision and training for conservation district technicians; and provided outreach to encourage landowners/operators in critical areas to participate in nonpoint source implementation, phosphorus reduction, and erosion control. Watershed resource inventories for use by local action committees were developed; wetlands were identified and mapped; environmental assessments and tillage surveys were conducted; interagency agreements were signed to better facilitate and coordinate activities with other Federal agencies, State agencies, and international commissions and Provincial agencies; and SCS officials served on several committees with other Federal, State and International representatives to address common water quality concerns.

Technology and Data Base Development. Technology and data base development is used to provide policy, planning and implementation tools needed for the Water Quality Initiative. Information contained in the National Resources Inventory (NRI) and data bases in the areas of soil survey, agrichemicals, climatology, and plant materials is being integrated and compiled to provide relevant information that will focus water quality efforts on areas where combinations of factors (i.e., land use, crop productivity, agrichemical use, climate, soils, etc.) threaten both surface and/or groundwaters. SCS is updating water quality practices (i.e., pesticide management, nutrient management, agricultural waste management composting, constructed wetlands and filter strips) for the SCS Field Office Technical Guides to reflect existing and new research results as they relate to local resource conditions; developed and conducted water quality training exercises for personnel in the agency as well as outside the agency; developed Geographic Information Systems which are used to evaluate specific site conditions, support water quality problem identification, and plan appropriate preventive measures; developed Field Office Engineering System (FOES) computer software to assist in the design of structural water quality practices; and reviewed the applicability of existing water quality simulation models to assist in progresss reporting, analysis, and evaluating water quality activities.

Interagency coordination for water quality activities includes the following efforts:

Conservation Liaison positions have been established in 10 EPA regional offices and EPA national headquarters to provide conservation support for nonpoint activities relating to Section 319 of the Clean Water Act. Thirty similar positions have been established to support state environmental agencies. An additional liaison position has been established with EPA, TVA and Southeastern Egg and Poultry Association. This position provides a liaison for water quality needs with the regional poultry association.

Direct coordination between SCS and the Extension Service continues through the Education and Technical Assistance Committee to support the implementation of Water Quality Initiative (WQI) elements. This committee oversees the selection, planning and implementation of the nonpoint source Hydrologic Unit Areas and the Regional Demonstration Projects. Committee representation includes ASCS, ARS, CSRS, ERS, FS, EPA, NOAA and USGS.

Research in the area of agricultural related nonpoint source pollution is being coordinated with ARS, FS, EPA and USGS through the interagency Technical Integration Group to develop necessary conservation practices, evaluation procedures and research plans.

To coordinate the SCS water quality effort, the agency has completed a Five-Year Water Quality Action Plan that identifies program and technology objectives and actions to implement the USDA WQI. This plan, in concert with the State Water Quality Plan and water quality supplements to the SCS Field Office Technical Guide, provides guidance for future water quality and quantity activities.

Natural Resources Inventory: This work consists of collecting, interpreting, analyzing, and distributing natural resource and environmental data; and providing

the results to users for strategic planning, policy development, resource conservation program implementation, and appraising. The major effort is directed toward collecting and reporting statistically reliable data on the status and condition of the resources on nonFederal lands, and supporting interpretation and spatial analysis of these data. Access to these data is provided via modern computers and Geographic Information System technology. Inventory and monitoring includes making special resource interpretation maps, reporting on wind erosion conditions in the Great Plains States, and conducting special inventories. These special inventories and updates are used to report changes in resource conditions such as shelterbelts and wetlands. These activities provide technical resource data and interpret them for application in national, regional, and local land use and conservation program decisions, assessing ecosystems and supporting public policy.

The inventory and monitoring program is authorized by the Rural Development Act of 1972 (P.L. 92-419) and strengthened by the Soil and Water Resources Conservation Act (RCA) of 1977 (P.L. 95-192) and the Food Security Act of 1985 (P.L. 99-198), and the Food, Agriculture, Conservation and Trade Act of 1990 (P.L. 101-624). Since the passage of the Rural Development Act of 1972, the Soil Conservation Service has completed four National Resources Inventories at 5 year intervals (1977, 1982, 1987, and 1992). The five year cycle involves a continuous evolving process including planning, data collection, processing, analysis, and evaluation phases. The data elements collected during these inventories can be grouped into eight major categories: (1) soil characteristics and interpretations; (2) land cover, (3) land use; (4) erosion; (5) land treatment; (6) conservation treatment needs; (7) vegetative conditions; and (8) potential cropland.

Analysis and use of National Resources Inventory (NRI) data continues to address natural resource conservation and environmental issues and concerns such as those related to the 1985 and 1990 Farm Bills, water quality initiatives and changes in wetlands. The NRI provides information for state and national policy and program formulation, development of conservation legislation; allocation of funds, and placement of personnel. In addition, the data are used by other Federal agencies, state governments, universities, consultants, resource and conservation organization, and the media.

Specific concerns to which efforts are now being directed are as follows:

1. Streamlining data gathering and improving access to NRI data. Data collection for the 1992 NRI was completed in June 1992. The 1992 NRI was developed taking many factors into account, including data for analysis needed by March 1994 to aid in Farm Bill and RCA deliberations, and implementing recommendations from a 1989 report entitled "Streamlining the National Resources Inventory Process". A unique and powerful trending computerized data base is being developed. It features: site-specific natural resource information for three points in time (1982, 1987, and 1992); linkage to the agency's soils data bases; and spatial linkage to numerous other data bases.

2. Exploring techniques to improve inventory operations. Geographic information systems are being used and evaluated for providing data analysis and display. Developmental activities are being funded to better identify residue cover, seek water quality data, improve data collection procedures, use image processing and other technical tools, and link Forest Service inventory data with SCS databases. SCS is cooperating with the Economic Research Service, the National Agricultural Statistical Service, and the U. S. Geological Survey in the USDA Area Study Program, designed to provide chemical use and farming practice information in large watersheds to support the USDA water quality initiative. Efforts are also underway to integrate data from other agencies with SCS data to create a more complete resource data base and expand analytic capabilities. Information and technology is being provided to the Environmental Protection Agency's Environmental Monitoring and Assessment Project (EMAP) researchers.

3. Reporting wind erosion conditions for the 10 Great Plains" States. Each year during the November 1 to June 1 wind erosion season, 541 counties in the Great Plains States prepare estimates of cropland, rangeland, and other land damaged by wind erosion; crops and cover destroyed on land not damaged; land prevented from damage by emergency tillage; and land in condition to blow. Also data are provided on the major factors contributing to wind erosion for the blowing season. The report is used for informational purposes, to alert conservationists and others on the extent and severity of wind erosion in the high-hazard areas and as a basis for planning and installing appropriate conservation measures.

4. Inventorying special resource problems. Periodic reports are prepared on short-duration natural phenomena that affect health, safety, and agricultural production. Examples are drought, hail, floods, hurricanes, tornadoes, volcanic eruptions, prolonged temperature extremes, fires, plant diseases, and insect infestations. A special study to update NRI wetlands data was conducted during June and July 1991. Field visits for wetland determinations were made to a subsample of 1987 NRI sample sites. Scientifically valid estimates of wetland conversions on the United States non-Federal rural lands were compiled, on a nationwide basis, for the period 1982 to 1991. The results are being used for program planning and developing regulations.

Strategic Planning and Policy Analysis: SCS has leadership for the development and preparation of the resource appraisal, national conservation program, and statement of policy required by the Soil and Water Resource Conservation Act of 1977 (P.L. 95-192) (RCA), as amended by the Food Security Act of 1985 (P.L. 99-198). Activities carried out under this act, and authorities otherwise contained in the act of 1935 (P.L. 74-46), help SCS, USDA, and Congress, soil and water conservation districts, and other Federal, State, and local agencies identify the magnitude and complexity of soil and water resource problems; identify the present and likely future demands on the soil, water, and related natural resources of the Nation; formulate and resolve natural resource policy issues; and make needed shifts toward the highest priority conservation tasks.

SCS has implemented a formal strategic planning process. A strategic plan has been developed and approved by the SCS Chief and management officials throughout the Agency. The Chief and staff also consulted with a wide array of customer groups, such as the National Association of Conservation Districts, farm groups, environmental groups, and USDA Agencies and had input from the field staff to define the needs and expectations of SCS's clients. The strategies are to:

- Anticipate key natural resource issues and propose effective policies to address them.
- Encourage voluntary solutions to natural resource problems.
- Advocate total resource management.
- Promote the efficient management of water and the enhancement of its quality.
- Maintain a highly-skilled, diverse work force capable of providing quality customer-oriented service.

Initiatives are being incorporated into Annual Plans of Operations throughout SCS and a National plan for each strategy is being developed.

Resource Appraisal and National Conservation Program (NCP). In 1980, the first Appraisal, authorized by P.L. 95-192, was issued and used to formulate the first NCP in 1982. The Second Appraisal, published in 1989 provided the basis for the 1988-97 NCP update. The Food Security Act of 1985 extends the RCA authority to 2008 and requires appraisals and NCP updates every 10 years.

The Third RCA Appraisal for 1995 is directed toward the achievement of a better understanding of the environmental relationships of alternative choices in agricultural production. It will:

- o Assess the condition and trends of soil, water, and related resources on nonfederally owned lands.

- o Project the short and long-term environmental quality and sustained agricultural conditions which would be attained under alternative agricultural production, conservation, commodity, environmental, and trade policies and their affect on the environment, producers, and the economic, social, and institutional structure of rural America.

- o Evaluate Federal/state/local conservation partnerships to further the protection, conservation, and enhancement of the environment for sustained production.

- o Assess the use, management, and conservation of cropland, forestland, rangeland, pastureland, and wetlands in meeting the role of total resource management and multiple conservation benefits.

- o Address emerging resource issues and tradeoffs.

The 1988-97 National Conservation Program Implementation. The key components of the 1988-97 NCP are to increase:

- -- Concentration on problems identified as national priorities (i.e., reducing excessive soil erosion and protecting water quality and quantity).

- -- Cooperation with members of the conservation partnership of Federal, State and local agencies and private organizations.

- -- Improving consistency between conservation programs and other farm programs to ensure that all USDA farm programs support conservation goals.

SCS has made progress in developing and implementing actions to support each of the program components. For example, the erosion priority is being addressed under the terms of the Food Security Act. In response to the President's Water Quality Initiative, SCS is evaluating the extent to which USDA water quality projects are cost effectively protecting and improving waters from agricultural nonpoint source pollution. SCS is evaluating the extent to which USDA water quality projects are cost effectively protecting and improving waters from agricultural nonpoint source pollution. SCS conducted a case study evaluation of FSA implementation in 14 counties and 4 states during 1993. Focus group sessions were held with producers, on-site field visits were conducted, and local agency administrators were interviewed as part of the evaluation. The evaluation visits were completed the first week of October, 1993. A report on the findings is being prepared with an expected release date in January, 1994.

SCS's expanded capability for policy analysis. Examples of specific initiatives to which efforts are being directed include:

- -- The development of a long-range strategic plan for defining the issues which are critical to the future of SCS.

- -- Model development to evaluate the impact of alternative conservation policies on soil, water, and wildlife resources at the farm, regional, and national levels.

- -- Strengthen the conservation partnership by: cooperating with the University of Tennessee to develop sustainable agriculture enterprise budgets for limited resource farms in the mid-South; providing leadership for assessing the impact of the USDA/1890 Institution initiatives; and providing financial support of a pilot program in 10 states for building the leadership capacity of the Soil and Water Conservation Districts.

-- Evaluating the water quality demonstration projects authorized under USDA's 5-Year Water Quality Plan. In the 16 projects, an evaluation was made of the effectiveness of the demonstration approach for achieving voluntary, cost-effective, accelerated adoption of water quality protection measures.

## SOIL SURVEYS

Current Activities: The SCS has leadership for the National Cooperative Soil Survey (NCSS). It is the only soil survey conducted by Federal, State, and local units of government and State Agricultural Experiment Stations. The NCSS is the process through which soils are studied in the field and in the laboratory. They are described and the boundaries plotted on aerial photographs. Soil interpretations explain alternative uses and behavior of the soils. The results of research on soils and of experience in using them contribute to these explanations.

The objective of the NCSS is to provide and maintain soils information in both published copy and digital copy that meets the users needs and supports those users in the use of that information. Digital data is provided at three levels of generalization. Soil Survey Geographic Data Base (SSURGO) is the most detailed level of information and is used primarily by landowners, townships, counties or parishes, and watershed hydrologic units for planning and resource management. State Soil Geographic Data Base (STATSGO) is used primarily for multi-county, state, and river basin planning and resource management and monitoring. National Soil Geographic Data Base (NATSGO) is used primarily for multi-state, regional, and national planning and resource appraisal, monitoring, and appraisal. Soils information is used by many Federal, State, and local organizations, and individuals.

Because of the Geographic Information System (GIS) technology, these agencies, organizations and individuals have increased their demand for a computerized digital copy of this basic resource information. This technology has also increased the kinds of interpretations requested by old and new users, and has led to an increased workload for updating and maintaining existing soil information in a digital format. About 10 percent of the completed soil surveys are now available in digital format.

The first soil surveys made were primarily for agricultural purposes. In about 1950, the soil survey program was revised and soils were identified and classified using basic soil properties. This enabled soils to be interpreted for additional users such as urban planners, engineers and other resource managers. By identifying the additional soil properties important to these particular users the usability of soil surveys was expanded. The National Soil Information System (NASIS), currently being developed, will further expand the usability of soil surveys. This information system will make information on soil properties available electronically for each soil survey.

A system of soil classification used in making soil surveys, called Soil Taxonomy, has been developed by SCS in cooperation with other interested agencies of State and local governments and many foreign contributors. Close adherence to this system allows knowledge and experience gained from one soil in one area to be used in other areas where the same kind of soil occurs. This is extremely useful since soil properties are rarely uniform over broad areas.

A soil survey is the basic inventory that forms the foundation for most SCS programs. It also provides information critical for water quality, waste disposal and wetland programs for other agencies. It is the basis for determining the potential soil erosion hazard, wetlands, susceptibility or potential for ground water contamination, and suitability and productivity for cultivated crops, grasses, and trees. It is the basis for the conservation alternatives SCS provides to those who request assistance. It enables land users to predict how each kind of soil will respond to use, management, and treatment. Soil surveys are also of importance to planners, engineers, zoning commissions, tax commissioners,

homeowners, developers, and others. Many have suffered severe losses when facilities were located on unsuitable soils for which appropriate treatment was not provided to compensate for unfavorable soil conditions. In many instances, the use of soil survey information in construction site selection can decrease initial construction cost as well as maintenance cost.

Soil surveys also provide a basis to help predict the impact of global warming on worldwide agricultural production and other land dependent processes. SCS provides soil scientists to assist users in understanding and in adapting the soil survey information to their particular needs.

Selected Examples of Recent Progress: As of September 30, 1993, soil maps that meet the current standards for all potential users had been prepared on nearly 1.7 billion acres or about 73 percent of the country. During FY 1993, SCS soil scientists mapped and updated 24,903,097 acres, and another 3,033,224, acres were mapped and updated by other Federal, State, and local agencies in cooperation with SCS for a total of 27,936,321 acres mapped in FY 1993.

Soil mapping priority is currently being directed toward completion of all previously unmapped private lands and updating mapping and interpretations that no longer meet user needs and requirements.

State, local, and other Federal agencies involved in the [illegible] provide about 15 percent of the funds and 20 percent of the personnel services used to produce soil maps and interpretive data.

Soil Survey Publications: A total of 39 soil surveys were edited and sent to the Government Printing Office during FY 1993. Soil surveys for 48 counties or soil survey areas were published in FY 1993. Thirty-seven of the surveys published were for new counties, and eleven were reprints of previously published surveys.

## SNOW SURVEY AND WATER SUPPLY FORECASTING

Current Activities: Snowmelt provides about 80 percent of the stream flow in the west. SCS conducts snow surveys and develops water supply forecasts for water users in 11 Western states and Alaska. Agriculture, municipal, industrial, recreation and fish and water users are the primary recipients of these forecasts, but fish and wildlife activities also use them to carry out their mission. Data from some 850 manual snow courses and 576 automated SNOTEL (for snow telemetry) sites along with 575 stream gauges, 310 reservoirs, and 1,200 precipitation stations and 2,000 climatological stations are used to generate user products through an automated centralized forecasting system. These measurements are made by SCS in cooperation with other Federal, State and local agencies, power companies, irrigation companies, and the Provincial Government of British Columbia. Numerous routine and interactive programs for manipulating hydrologic and meteorologic data are included in programs within the system. These are mainly intended to aid in applying snow survey program information to conservation activities and ecosystem analysis at the field office level and to generate water supply forecasts. The Centralized Forecasting System hosted over 28,000 separate information accesses by users through telecommunications in 1993.

Water supply forecasts are issued cooperatively with the National Weather Service beginning in January and concluding in June. The water forecasts help irrigators make the most effective use of available streamflow for agricultural production needs. Other Federal agencies and private organizations also use water supply forecast information to help them carry out their missions. These forecasts also help the Federal government in administering international water treaties. State governments use the information in managing intrastate streams and interstate water compacts. Municipalities uses the forecasts to plan the management of the anticipated water supply early in the year. The operation of reservoirs satisfying multiple-use demands is also heavily dependent on timely, accurate water supply forecasts.

The upgrade of the field components of the SNOTEL system has been completed and now the focus of program activities has shifted into the area of improving precision in information measurement, transmission and timely transferring to the public. Another 200 remote SNOTEL sites will be added to provide additional data water supply forecast information needed for water users. The current data collection of the SNOTEL system is limited because it does not include required soil moisture and temperature data for soiis research and forecasting and modeling purposes. In an attempt to broaden the scope of the data network, a pilot project has been implemented to apply meteor burst technology for soils moisture and temperature data and other applications, such as wind erosion monitoring and water quality.

Building upon the success and experience of the Snow Survey and Water Supply Forecasting program in providing natural resource information for the Western United States, a Climate Data Access Facility (CDAF) was created in October 1990. Located at the West National Technical Center, CDAF provides climatic data and analysis required to support the SCS Field Office Computing System resource information needs and other conservation activities nationwide. CDAF maintains a climate data base which supports rapid electronic data and analysis for all 50 states, the Pacific Basin, and the Caribbean Islands. A trained network of SCS Climate Data Liaisons located in each State coordinates the needs of the customers.

The CDAF quality controlled data base contains historic information for nearly 17,000 climate stations. Products provided include on-line climate information through the Centralized Data Base System and special reports including: (1) a comprehensive historical 15 minute-hourly data set for the Chesapeake Bay project, (2) 3,000 historical climate data sets for RUSLE (Revised Universal Soil Loss Equation) implementation in DOS format, and (3) 106 climatic summaries prepared for SCS soil surveys. These and other services provided an estimated benefit of $491,000 in 1993.

## PLANT MATERIALS CENTERS

Current Activities: Plant Materials Centers (PMC's) are operated by or receive technical assistance from SCS for developing conservation systems using plant materials. The process may include developing techniques for the effective use of plants and assembling, testing, selecting, releasing, and providing for the commercial production of plants to protect our natural resources. The priority of plant materials development is determined by the objectives and priorities of the SCS Strategic Initiatives for the 1990's and specific conservation problems within each PMC's service area. Special emphasis is currently being placed on: (1) reducing erosion from cropland by selecting cover crops and developing systems for their use to provide winter cover on low residue crops such as cotton, and soybeans; (2) improving and protecting the quality of surface and groundwater by developing filter strips between cropland and streams, developing the plants and technology for bio terraces, and developing artificial wetlands for removing pollutants from waste water; (3) creating or restoring wetlands; (4) protecting grazing resources - range, pasture and forestland - by developing higher producing, longer-life native forage varieties, and managing desirable native plants to control the spread of noxious weeds; (5) protecting upland riparian areas and coastal shorelines; (6) developing plants and systems for their use that support low input sustainable agriculture such as replacing erosive annual forage crops with perennial plants for use on highly erodible cropland; and (7) accelerating commercial production of previously released conservation plants in high demand for use in conservation programs.

Significant progress has been made on initiatives included in the Plant Materials Centers Program Strategic Plan that was approved in April, 1992. Technical capabilities of the PMC's are rapidly improving. A methodology for national and multi-PMC coordination is in place and being implemented. Policy for accelerating technology transfer activities by collection and use of royalties from new plant releases is being issued. Adjustments in PMC locations and service areas have been made to better serve our clients and build partnership with other agencies.

Improvement in the automation of data gathering is progressing on schedule which will result in faster technology transfer to the end user of plant materials results. The work at the centers includes cooperation with other Federal and State agencies, agriculture experiment stations, State departments of natural resources, conservation, wildlife, and seed and nursery associations to encourage production and promotion of improved plants. Plant Materials Centers and the National Park Service continued an excellent cooperative effort to revegetate sites disturbed in parks with plant materials for the disturbed site. This effort has been used on a prototype for developing a similar relationship with the U.S. Army and the entire agency.

Twenty-two PMC's are operated by SCS and four by cooperating agencies or by others. They are:

Operated by SCS:

Tucson, Arizona
Booneville, Arkansas
Lockeford, California
Brooksville, Florida
Americus, Georgia
Molokai, Hawaii
Aberdeen, Idaho
Manhattan, Kansas
Quicksand, Kentucky
Golden Meadow, Louisiana
Beltsville, Maryland
East Lansing, Michigan
Coffeeville, Mississippi
Elsberry, Missouri
Bridger, Montana
Cape May, New Jersey
Big Flats, New York
Corvallis, Oregon
Kingsville, Texas
Knox City, Texas
Nacagdoches, Texas
Pullman, Washington

Operated by Cooperating Agencies with Technical Assistance and Funding by SCS:

Los Lunas, New Mexico (New Mexico State University)
Bismarck, North Dakota (North Dakota Association of SCD's)
Meeker, Colorado (White River and Douglas Creek Soil Conservation Districts with partial funding from SCS)

Other:

In addition to the 25 centers listed above, the State of Alaska operates a PMC at Palmer. SCS provides technical assistance to this center through a cooperative agreement.

Comparative Plant Testing: During FY 1993, approximately 20,000 domestic and foreign plant collections were being comparatively evaluated in 60,000 plots by the PMC's. These plants are being evaluated for cropland cover crops, artificial wetlands, protecting range, pasture and forest resources, stabilizing critical areas such as sand dunes, streambanks, and shorelines, road cuts and fills, utility corridors and surface mined lands, grass hedges, and replacement of annual forage plants with perennial and for wind breaks to protect cropland. An increasing emphasis is being placed on the collection and evaluation of native plant materials for these uses. The final evaluation of new plants and cultural methods is made on farms and ranches in conservation districts under actual use conditions. There are nearly 2,000 such tests underway now.

Plant Releases for Commercial Production: The SCS, over the years, has released over 335 different varieties of conservation plants to commercial producers. Some varieties have been replaced with superior plants. Currently, about 235 improved varieties are in commercial production and used in conservation programs. Ten new plants were released 1993.

Commercial production of SCS released conservation plants in FY 1992 was approximately 21 million pounds of seed and 29 million plant seedlings. The commercial value of this production was approximately $70.0 million.

Plants for Solving Conservation Problems: Some of the major soil conservation problems for which plants are currently being evaluated including emphasis on emerging problems are as follows:

1. Cropland erosion. Conservation plants that are both compatible with the cropping systems and reduce erosion are being developed. This will assist future conservation compliance efforts. The Americus Georgia PMC released an improved hairy vetch in 1993. The New York and New Jersey PMC's are publishing results from lysimeter studies on the nutrients uptake of various grasses. Work published by the Jamie L. Whitten Mississippi PMC, which showed that no-till cotton production is as high or higher than conventional tillage is being widely expanded and used in Mississippi and the adjacent states.

2. Water Quality. The use of constructed wetlands for improving the quality of water coming from agricultural waste is being evaluated at PMC's in Georgia, Oregon, Kentucky, Idaho and New Mexico. Four PMC's are currently evaluating grass and other plant species for their ability to uptake plant nutrients from runoff or from the soil profile. The Georgia PMC is releasing four plants, and the technology for their use, to use in wetlands for improving water quality. This work is being published and incorporated into SCS specifications.

3. Wetland restoration and creation. The New Jersey and Louisiana PMC's are continuing efforts to restore salt water marshes in coastal areas. The New Jersey PMC released a superior smooth cord grass, a native, for use in building coastal marshal along the Atlantic coast. Four PMC's have initiated studies that will lead to species and methodology for creating fresh water wetlands. The Jamie L. Whitten PMC published a national source list of wetland plants which is also available electronically. These PMC's are developing alternative release procedures to get plants to the client more quickly.

4. Range, pasture and forest grazing lands. Protecting range, pasture and forest grazing lands and improving forage quality and quantity continues to receive special emphasis particularly on low fertility, shallow, saline, or alkaline soils, and for use in arid and semiarid areas.

5. Low input sustainable agriculture. Plants and systems are being developed to support low input sustainable agriculture. There is a growing emphasis and priority at PMC's to address this potential. Significant progress is being made in finding a perennial grass to replace corn silage. Because there is no residue remaining following the harvest of corn silage, the land is exposed to surface erosion over the winter. This is a particular problem where corn silage is commonly grown on sloping land. Perennial grasses which produce 60-70 percent as much total digestible nutrients as corn show potential. It's use will reduce fertilizer, energy and herbicide input significantly and eliminate erosion. Easkin gamagrass is emerging as the most promising plant. Field trials are underway now, testing the process and superior germplasm.

Renovation of Facilities and Equipment at Plant Materials Centers: FY 1993 was the fourth of a five-year program to renovate facilities and equipment at PMC's. Six PMC's constructed new buildings or made major additions or alterations to existing buildings. This program will significantly improve the efficiency and capability of PMC's when completed.

USDA Plant Names Data Base: A data base became available for use by all USDA agencies, other Departments, universities, and private groups called Plant List of Accepted Nomenclature, Taxonomy and Symbols (PLANTS), that standardizes the use of plant names. It will become a part of INFOSHARE. Progress has been possible through the partnership with the University of North Carolina, Biotz of North America program.

## SOIL CONSERVATION SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

River Basin Surveys and Investigations

For necessary expenses to conduct research, investigation, and surveys of watersheds of rivers and other waterways, in accordance with section 6 of the Watershed Protection and Flood Prevention Act approved August 4, 1954, as amended (16 U.S.C. 1006-1009), [$13,482,000] $11,000,000: Provided, That this appropriation shall be available for employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed $60,000 shall be available for employment under 5 U.S.C 3109.

## River Basin Surveys and Investigations

| | |
|---|---|
| Appropriation Act, 1994 | $13,482,000 |
| Budget Estimate, 1995 | 11,000,000 |
| Decrease in Appropriation | -$2,482,000 |

### SUMMARY OF INCREASES AND DECREASES
(On basis of appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| River Basin Surveys: | | | | |
| 1. USDA cooperative studies | $7,820,000 | -- | -$1,440,000 | $6,380,000 |
| 2. Flood plain management assistance | 3,505,000 | -- | -645,000 | 2,860,000 |
| 3. Interagency coordination and program formulation | 2,157,000 | -- | -397,000 | 1,760,000 |
| TOTAL AVAILABLE | $13,482,000 | -- | -$2,482,000 | $11,000,000 |

### PROJECT STATEMENT
(On basis of appropriation)

| Project | 1993 Amount | 1993 Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| River Basin Surveys: | | | | | | | |
| 1. USDA cooperative studies | $7,689,000 | 120 | $7,820,000 | 119 | -$1,440,000 | $6,380,000 | 96 |
| 2. Flood plain mgmt. assistance | 3,454,000 | 54 | 3,505,000 | 53 | -645,000 | 2,860,000 | 42 |
| 3. Interagency coord. and program form. | 2,108,000 | 33 | 2,157,000 | 33 | -397,000 | 1,760,000 | 26 |
| Total available or est | $13,251,000 | 207 | $13,482,000 | 205 | -$2,482,000 | $11,000,000 | 164 |

### PROJECT STATEMENT
(On basis of available funds)

| Project | 1993 Amount | 1993 Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Direct obligations: | | | | | | | |
| River Basin Surveys: | | | | | | | |
| 1. USDA cooperative studies | $7,650,094 | 120 | $7,820,000 | 119 | -$1,440,000 | $6,380,000 | 96 |
| 2. Flood Plain management assistance | 3,430,767 | 54 | 3,505,000 | 53 | -645,000 | 2,860,000 | 42 |
| 3. Interagency coord. and program form. | 2,111,704 | 33 | 2,157,000 | 33 | -397,000 | 1,760,000 | 26 |
| Total direct oblig. | 13,192,565 | 207 | 13,482,000 | 205 | -2,482,000 | 11,000,000 | 164 |
| Unobligated balance lapsing | (+58,435) | (--) | (--) | (--) | (--) | (--) | (--) |
| Total available or est | (13,251,000) | (207) | (13,482,000) | (205) | (-2,482,000) | (11,000,000) | (164) |
| Reimbursable oblig. | 936,366 | 15 | 1,000,000 | 16 | -- | 1,000,000 | 16 |
| Obligational authority | $14,128,931 | 222 | $14,482,000 | 221 | -$2,482,000 | $12,000,000 | 180 |

### SOURCES OF REIMBURSEMENTS

| Project | 1993 Actual | 1994 Estimated | Increase or Decrease | 1995 Estimated |
|---|---|---|---|---|
| River Basin Surveys: | | | | |
| USDA cooperative studies | $126,250 | $130,000 | -- | $130,000 |
| Flood Insurance Studies | 207,300 | 210,000 | -- | 210,000 |
| Other Federal Sources | 166,091 | 170,000 | -- | 170,000 |
| Other Non-Federal Sources | 436,725 | 490,000 | -- | 490,000 |
| Total reimbursements | $936,366 | $1,000,000 | -- | $1,000,000 |

OUTLAYS

| Project | 1993 Actual | 1994 Estimated | Increase or Decrease | 1995 Estimated |
|---|---|---|---|---|
| River Basin Surveys: | | | | |
| 1. USDA Cooperative Studies..... | $8,108,715 | $7,803,000 | -$1,334,000 | $6,469,000 |
| 2. Flood plain management assistance | 3,642,540 | 3,505,000 | -599,000 | 2,906,000 |
| 3. Interagency coordination and program formulation..... | 2,223,067 | 2,139,000 | -365,000 | 1,774,000 |
| Total Outlays..... | $13,974,322 | $13,447,000 | -$2,298,000 | $11,149,000 |

EXPLANATION OF PROGRAM

The appropriation "River Basin Surveys and Investigations," funds three activities as authorized by Public Law 83-566, as amended. The Department cooperates with other Federal and State agencies in making surveys and investigations of watersheds of rivers and other waterways. Activities include:

1) USDA Cooperative Studies:

The Department participates in:

-- Studies of agricultural and other rural land and water resources within river basins to gather basic data on existing and potential water supplies, present and future land use, current and potential economic development, and existing erosion and sediment problems.

-- Studies and investigations are made of agricultural, rural, and upstream water and land resources and problems to determine corrective actions needed and potentials for conservation and use. Evaluations include:

  -- Erosion and sediment damage to rural lands and properties,

  -- Upstream floodwater damage to rural lands and properties,

  -- Water quality improvement and improved instream flows,

  -- Opportunities for water conservation,

  -- Maintaining existing drainage of agricultural lands,

  -- Water quality and chemical use in land management practices,

  -- Wetland and water storage capacity,

  -- Agricultural drought problems,

  -- Agricultural water needs for livestock and domestic use,

  -- Rural development and municipal and industrial water needs,

  -- Methods to preserve prime and unique farmlands,

  -- Water needs for fish, wildlife, and forest-based industries.

The planning activity gives consideration to finding alternative combinations of land treatment, structural and nonstructural measures to solve the area's problems, meet the identified needs, and develop the indicated potentials.

2) Flood plain management assistance:

-- Is carried out in cooperation with State and local governments,

-- Identifies flood hazards on selected flood plain reaches and the location and use of wetlands,

-- Provides reports which include flood profiles and maps showing areas subject to flooding by select frequency floods,

-- Provides information needed by State and local governments to implement land use and flood plain management programs.

3) Interagency Coordination and Program Formulation:

-- Provides national policy and program leadership direction to studies of river basins, flood plain management, and Colorado River Salinity activities;

-- Provides USDA participation in water policy and program coordination at the National level.

-- Provides USDA membership and participation in the activities of three Federal-State Interagency Committees (SEBIAC, PSIAC, [illegible]RBIAC), the Susquehanna and Delaware River Basin Commissions, and other regional entities involved in water and related resource planning and coordination.

-- Provides reviews of proposed reports and water projects of other Departments and agencies.

The following tabulation shows the number of surveys and obligations by type of survey for fiscal years 1993, 1994, and 1995.

| | 1993 | 1994 | 1995 |
|---|---|---|---|
| 1. Surveys in cooperation with State and other Federal agencies: | | | |
| (1) Surveys in progress, start of year..... | 76 | 90 | 80 |
| (2) Surveys initiated during year..... | 32 | 25 | 0 |
| (3) Surveys completed during year..... | 18 | 35 | 25 |
| (4) Surveys in progress, end of year..... | 90 | 80 | 55 |
| Total Cost Cooperative Surveys (000's)..... | $7,651 | $7,820 | $6,380 |
| 2. Flood Plain Management Assistance Program: | | | |
| (1) Studies in progress, start of year..... | 77 | 84 | 96 |
| (2) Studies initiated during year..... | 60 | 67 | 0 |
| (3) Studies completed during year..... | 53 | 55 | 50 |
| (4) Studies in progress, end of year..... | 84 | 96 | 46 |
| Total Cost Flood Plain Management Studies (000's) | $3,430 | $3,505 | $2,860 |
| Reimbursable Flood Insurance Studies (non-add) (000's)..... | ($936) | ($1,000) | ($1,000) |
| (1) Studies in progress, start of year..... | 4 | 7 | 10 |
| (2) Studies initiated during year..... | 11 | 6 | 6 |
| (3) Studies completed during year..... | 8 | 3 | 4 |
| (4) Studies in progress, end of year..... | 7 | 10 | 12 |
| 3. Interagency Coordination and Program Formulation (000's)..... | $2,111 | $2,157 | $1,760 |
| Total direct obligations (000's)..... | $13,192 | $13,482 | $11,000 |

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A decrease of $2,482,000 is requested for the River Basins Surveys and Investigations Program consisting of:

(a) A decrease of $412,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, SCS is reducing employment in this program from the FY 1993 base by 3.0 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(b) A decrease of $100,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $100,000.

Nature of Change. In order to achieve these savings, SCS will reduce discretionary expenses in this program by $100,000 in FY 1995, in areas such as travel, transportation of things, rent and communications, miscellaneous services, and supplies. There would be no significant impact on program operations as long as the agency is funded for the uncontrollable FY 1995 increased pay and inflationary costs.

(c) A decrease of $1,970,000 for program funding.

Need for Change. This decrease is part of a reduction to meet overall USDA budget and spending targets.

Nature of Change. This funding level reduces the size and scope of River Basin studies, and directs work to high priority resource concerns in areas where there is a high level of local participation and commitment to implementing study recommendations with other than federal programs. Work will continue on the cooperative river basin studies and flood plain management studies already in progress at the beginning of 1995. No new cooperative studies or flood plain management studies would be initiated and work on existing studies would be slowed. There is a loss of 35 staff years associated with this reduction.

Priority would be given to completing studies where local sponsors are willing and able to pay the costs of measure installation. A redirection toward a more holistic ecosystem management approach will continue with emphasis on studies that respond to water and related land resource needs related to agricultural and rural community flooding, agricultural pollutants contributing to nonpoint water quality, and agricultural water management.

Soil Conservation Service
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995
RIVER BASIN SURVEYS AND INVESTIGATIONS

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS |
| ALABAMA..... | $201,943 | 4 | $91,820 | 2 | $76,000 | 2 |
| ALASKA..... | 229,993 | 4 | 140,430 | 2 | 117,000 | 2 |
| ARIZONA..... | 216,001 | 3 | 129,630 | 2 | 108,000 | 2 |
| ARKANSAS..... | 329,996 | 6 | 297,070 | 5 | 247,000 | 4 |
| CALIFORNIA..... | 424,833 | 8 | 432,110 | 8 | 360,000 | 7 |
| COLORADO..... | 173,000 | 3 | 216,050 | 4 | 180,000 | 3 |
| CONNECTICUT.... | 170,004 | 4 | 189,050 | 4 | 157,000 | 3 |
| DELAWARE..... | 49,935 | 1 | 75,620 | 1 | 63,000 | 1 |
| FLORIDA..... | 230,000 | 4 | 243,060 | 4 | 202,000 | 3 |
| GEORGIA..... | 207,879 | 3 | 216,050 | 3 | 180,000 | 2 |
| HAWAII..... | 120,002 | 1 | 183,650 | 1 | 153,000 | 1 |
| IDAHO..... | 324,918 | 5 | 286,270 | 4 | 238,000 | 3 |
| ILLINOIS..... | 214,132 | 3 | 135,030 | 2 | 112,000 | 2 |
| INDIANA..... | 269,959 | 5 | 297,070 | 5 | 247,000 | 4 |
| IOWA..... | 323,984 | 6 | 351,090 | 6 | 292,000 | 5 |
| KANSAS..... | 219,988 | 3 | 216,050 | 3 | 180,000 | 2 |
| KENTUCKY..... | 250,000 | 4 | 243,060 | 4 | 202,000 | 3 |
| LOUISIANA..... | 218,304 | 2 | 270,070 | 3 | 225,000 | 2 |
| MAINE..... | 39,967 | 0 | 75,620 | 1 | 63,000 | 1 |
| MARYLAND..... | 100,001 | 2 | 0 | 0 | 0 | 0 |
| MASSACHUSETTS.. | 48,503 | 1 | 39,750 | 1 | 33,000 | 1 |
| MICHIGAN..... | 219,999 | 4 | 259,260 | 5 | 216,000 | 4 |
| MINNESOTA..... | 340,004 | 6 | 367,290 | 6 | 306,000 | 5 |
| MISSISSIPPI.... | 309,669 | 7 | 324,080 | 7 | 270,000 | 6 |
| MISSOURI..... | 375,005 | 7 | 419,680 | 8 | 349,000 | 7 |
| MONTANA..... | 178,001 | 3 | 183,650 | 3 | 153,000 | 2 |
| NEBRASKA..... | 300,001 | 6 | 280,870 | 5 | 234,000 | 4 |
| NEVADA..... | 65,002 | 1 | 75,620 | 1 | 63,000 | 1 |
| NEW HAMPSHIRE.. | 245,198 | 4 | 288,650 | 5 | 240,000 | 4 |
| NEW JERSEY..... | 124,433 | 3 | 151,240 | 4 | 126,000 | 3 |
| NEW MEXICO..... | 217,000 | 4 | 194,450 | 3 | 162,000 | 2 |
| NEW YORK..... | 243,822 | 6 | 264,660 | 6 | 220,000 | 4 |
| NORTH CAROLINA. | 230,001 | 4 | 156,640 | 3 | 130,000 | 2 |
| NORTH DAKOTA... | 149,998 | 3 | 108,030 | 2 | 90,000 | 2 |
| OHIO..... | 314,999 | 6 | 324,080 | 6 | 270,000 | 5 |
| OKLAHOMA..... | 160,000 | 3 | 225,240 | 4 | 188,000 | 3 |
| OREGON..... | 149,859 | 3 | 151,240 | 3 | 126,000 | 2 |
| PACIFIC BASIN.. | 31,004 | 0 | 129,630 | 2 | 108,000 | 2 |
| PENNSYLVANIA... | 199,860 | 3 | 108,030 | 2 | 90,000 | 2 |
| PUERTO RICO.... | 49,931 | 0 | 75,620 | 1 | 63,000 | 1 |
| RHODE ISLAND... | 51,302 | 1 | 60,490 | 1 | 50,000 | 1 |
| SOUTH CAROLINA. | 250,001 | 5 | 259,260 | 5 | 216,000 | 4 |
| SOUTH DAKOTA... | 133,959 | 2 | 129,630 | 2 | 108,000 | 2 |
| TENNESSEE..... | 252,958 | 4 | 297,070 | 5 | 247,000 | 4 |
| TEXAS..... | 240,000 | 5 | 291,670 | 6 | 243,000 | 5 |
| UTAH..... | 119,941 | 3 | 189,050 | 5 | 157,000 | 4 |
| VERMONT..... | 149,998 | 2 | 162,040 | 2 | 135,000 | 2 |
| VIRGINIA..... | 199,791 | 3 | 216,050 | 3 | 180,000 | 2 |
| WASHINGTON..... | 249,983 | 4 | 280,870 | 4 | 234,000 | 3 |
| WEST VIRGINIA.. | 279,979 | 4 | 237,660 | 3 | 198,000 | 2 |
| WISCONSIN..... | 189,996 | 3 | 210,650 | 3 | 175,000 | 2 |
| WYOMING..... | 219,999 | 4 | 216,050 | 4 | 180,000 | 3 |
| CHESTER NTC.... | 80,948 | 1 | 82,100 | 1 | 68,000 | 1 |
| FORT WORTH NTC. | 326,656 | 2 | 350,010 | 2 | 291,000 | 2 |
| LINCOLN NTC.... | 162,999 | 3 | 159,880 | 3 | 133,000 | 2 |
| PORTLAND NTC... | 106,853 | 2 | 109,110 | 2 | 91,000 | 2 |
| NATIONL HDQTRS. | 1,116,793 | 6 | 1,263,900 | 6 | 1,055,000 | 5 |
| FOREST SERVICE. | 793,280 | 8 | 750,000 | 7 | 400,000 | 4 |
| Total Available or Estimate.. | $13,192,564 | 207 | $13,482,000 | 205 | $11,000,000 | 164 |

# RIVER BASIN SURVEYS AND INVESTIGATIONS

## STATUS OF PROGRAM

The Watershed Protection and Flood Prevention Act, Public Law 83-566, Section 6, August 4, 1954, provides for cooperation with other Federal, State, and local agencies in making investigations and surveys of river basins as a basis for the development of coordinated water resource programs. Reports of the investigations and surveys serve as guides for the development of water, land, and related resources in agricultural, rural, and urban areas within upstream watershed settings. They also serve as a basis for coordination with major river systems and other phases of water resource management and development.

The Soil Conservation Service has leadership for administering river basin surveys, investigations, and planning activities including the development of general planning principles, criteria, and procedures; determining land resources availability and land uses; appraising physical problems and needs; determining water, land, and related resources potential of upstream watersheds; and coordinating programs with other agencies. During FY 1993, the Soil Conservation Service obligated $12,399,284 of the available program funds.

The Forest Service is responsible for forestry aspects of river basin planning, both Federal and nonFederal, and for rangelands administered within National Forests and for the analysis and projection of economic activity related to forest industries. During FY 1993, the Forest Service obligated $793,280 of the available program funds.

Other agencies in the Department participate in reviews and provide inputs where items of concern to the agency are involved.

## COOPERATIVE RIVER BASIN SURVEYS

Current activities: The Department analyzes and projects the soil erosion, upstream flooding, water use, and water quality in the basin. Agricultural water and related land resources and environmental problems are studied to determine corrective actions needed and potentials for resource management and development. Studies are made of erosion, floodwater, and sediment damage to rural lands and properties; problems related to and methods to preserve prime and unique farmlands; agricultural drought problems; opportunities for water conservation, improved instream flows and water quality improvement; and water needs for livestock, rural domestic use, fish, wildlife, forest-based industries, municipalities, and industries. The combination of these activities has a positive effect on rural and non-agricultural America.

The inventories and analyses of water, land, and related resources in upstream watersheds consist of identification of the most critical resource problems to agriculture and rural communities including wetlands and water storage capacity; flooding; the effect of land use and management practices including the use of chemicals on erosion, water quality and flow characteristics; the potential effect of agricultural, rural and upstream watershed management alternatives on erosion and watershed runoff characteristics; rural development; and other State water resources concerns. Consideration is given to the effects of potential water resource projects on lands and programs administered by the Department.

Types of investigations and surveys conducted include USDA Cooperative River Basin surveys and Joint USDA-Corps of Engineers Studies (PL 87639).

USDA Cooperative Surveys with Local, State, and Concerned Federal Agencies: The Department cooperates with local, State, and concerned Federal agencies in the preparation and updating of State water resource plans and special water and related land resources studies. The Department helps States coordinate upstream and downstream elements of water and related land resources planning activities. Through FY 1993 the Department has initiated 451 cooperative surveys and has completed 362.

Joint USDA - Corps of Engineers Studies (PL-87-639): Upon request by the Congress, USDA cooperates with the U.S. Army Corps of Engineers in joint investigations and surveys for solving water and related resource problems for river basins or other specific problem areas. Three studies are expected to be in planning during FY 1994.

## FLOOD PLAIN MANAGEMENT ASSISTANCE PROGRAM

Current Activities: The Soil Conservation Service assists local governments in developing and implementing local floodplain management programs by carrying out cooperative floodplain management studies in accordance with A Unified National Program for Floodplain Management. Local governments request floodplain management studies from the State agency, which determines the priority for a study. Each study is carried out consistent with a plan of work developed by the local government and the SCS. Studies may include identification of State and locally adopted non-structural measures for floodplain management, flood hazard determination, dam breach hazards, flood proofing, and interpretation of technical data to assist communities in their floodplain management decisions.

The information generated serves as the basis for recommendations to conservation district cooperators and State and local planners and officials regarding proposed land use changes; assisting rural upstream communities with their floodplain management programs and location and use of wetlands; and determining the flooding hazard of proposed housing and building sites for other agencies, such as the Farmers Home Administration. These studies also help identify local implementation programs for flood proofing, emergency preparedness, and other floodplain management activities. The information developed in floodplain management studies is also utilized in a variety of USDA ongoing programs. The study findings are used in watershed planning and preplanning, river basin surveys and investigations, and the reevaluation of floodplains below completed watershed projects. A total of 637 floodplain management studies have been initiated through FY 1993; 563 studies have been completed.

Flood Insurance Studies. SCS performs reimbursable flood insurance studies for the Federal Emergency Management Agency under Section 1360c of the National Flood Insurance Act of 1968 (Public Law 90-448). Flood insurance studies provide the technical information to enable communities to adopt floodplain management regulations to meet the requirements of the National Flood Insurance Program. SCS initiated 13 new flood insurance studies in FY 1993 and has completed a total of 539 detailed flood insurance studies.

## INTERAGENCY COORDINATION AND PROGRAM FORMULATION

Interagency coordination and program formulation in water and related land resources are achieved at the Federal level through the Cabinet Council on Natural Resources and Environment. The Secretary of Agriculture is a member of the Council. The Secretary has also organized a Policy Coordination Council in the Department. USDA is represented on an interagency Floodplain Management task force and on an Interagency Hazard Mitigation Task Force. Several subcommittees are organized to carry out the work of these task forces.

At the field level, coordination of regional and river basin planning has been achieved through River Basin Commissions, Interagency Committees, and ad hoc coordinating committees. With the discontinuance in FY 1982 of River Basin Commissions formed under the Water Resources Planning Act of 1965, PL 89-80, other regional entities have replaced the Commissions. The Soil Conservation Service continues to represent the Department when USDA representation is needed on the newly formed regional entities.

## SELECTED EXAMPLES OF RECENT PROGRESS AND ACCOMPLISHMENTS

Study priorities for Cooperative River Basin Surveys are identified in the National Conservation Program as erosion reduction, flood prevention, water conservation, and

water quality improvement. A total of 32 Cooperative River Basin Surveys and 27 flood plain management studies were started in FY 1993.

Water Quality Improvement: Water quality improvement focuses on off-site effects from agricultural non-point source pollutants, groundwater, water quality effects, and animal waste management.

Studies will evaluate the existing off-site surface and groundwater quality problems, estimate the environmental and economic damages, identify the sources of the non-point agricultural pollutants, predict future loadings based on agriculture trends, develop alternative best management practices (BMP's) to reduce the off-site problems, prioritize areas of potential treatment, and prepare a report for conservation districts and state agencies to use in implementing BMP's. Studies have been selected based on being consistent with priority problem areas as recognized by the appropriate state agency who manages water quality improvement, the critical resource being adversely impacted, and the concentration of agriculture.

Activities That Support Local Implementation: Both cooperative river basin surveys and flood plain management studies provide technical assistance to state and local agencies. Technical assistance is provided to assist state and local agencies to formulate soil erosion reduction, flood prevention, water conservation, and water quality plans. State and local as well as private resources are then used to implement the plans.

## COOPERATIVE RIVER BASIN STUDIES

Georgia Agricultural Non-Point Source Pollution Assessment. In 1991, local leaders including county officials, Soil and Water Conservation District Supervisors, the Georgia Soil and Water Conservation District Supervisors, the Georgia Soil and Water Conservation Commission and others requested the SCS to evaluate non-point source pollution in all streams in Georgia. The charge was to rate the non-point source (NPS) pollution potential of each stream and report to the sponsors.

In 1992, various agencies were brought together as a study group to analyze the available information. In addition to SCS, the group included: The Forest Service; Georgia Department of Natural Resources; University of Georgia Cooperative Extension Service; and, the Georgia Soil and Water Conservation Commission.

This group analyzed data for livestock numbers and animal waste and nutrients produced, cropland and pasture acres by erosion types with nutrient application, pesticide use, climate factors, rainfall, runoff events, agricultural conservation and runoff measures applied.

The study team compiled nutrient loadings of Nitrogen and Phosphorus for all counties and prorated this data to 548 subwatersheds. Based on the information analyzed and the consensus of the study group, the subwatersheds of Georgia have been tentatively ranked as to nutrient loadings. This information went to the field in late 1992 for local evaluation and input. The final product is being published in late 1993.

The assessment will give county governments and Soil and Water Conservation Districts information to plan their long range activities for the protection of county resources. It will also provide the priorities for Federal and State funded water quality implementation projects.

The Cooperative River Basin Program has been a logical tool for this study as it combines the local, state and federal expertise for quality input. The SCS delivery system, through assistance to the local Soil and Water Conservation Districts, is ideally suited to help sponsors implement their decisions.

Delaware Cooperative River Basin Study, Kansas. The purpose of this study is to establish a non-point source pollution management plan to protect and enhance the

quality of water in the Delaware River drainage basin. The plan is developed to address pesticide application with emphasis on atrazine management. This will enable timely assistance on this particular problem with the understanding that the plan will be amended later to include other non-point source pollution categories affecting this area.

A plan has been approved that develops a pesticide management area for all the Delaware River basin. Under this plan, a combination of voluntary and mandatory management and conservation practices will be utilized to limit the input of atrazine into area surface waters. By doing so, Kansas has provided a model for other states in taking action to protect citizens from contamination of surface drinking water supplies by farm chemical, at the same time considering farmers' needs to use pesticides prudently to maintain their farming operations.

Five county conservation districts; the Kansas State Conservation Commission; the USDA Cooperative Extension Service; the county Health Departments; the Kansas Department of Health and Environment; the Kansas Rural Center; and, the USDA Soil Conservation Service cooperated in the study.

## FLOOD PLAIN MANAGEMENT STUDIES

Williston Flood Plain Management Study, North Dakota. The purposes of this study are to define flood characteristics along an unnamed tributary of the Missouri River in the city of Williston and provide technical data necessary to implement an effective local floodplain management program.

The study defines the flood hazard of lands and developments along the unnamed tributary. It identifies flood problems and gives environmental background guidance for the development of flood damage reduction techniques, such as flood control structures, removal of obstructions, and floodproofing for use in overall floodplain management study.

The study report contains aerial photomaps, water surface profiles and typical valley and channel cross sections indicating their extent of flooding that can be expected along reaches of the tributary. The 10, 50, 100, and 500 year frequency flood discharges and elevations are included.

The city of Williston, Williams County Water Resource District, and the Williams County Soil Conservation District, the North Dakota State Water Commission, and the USDA Soil Conservation Service cooperated in the study.

Matteson Lake/Little Swan Creek Flood Plain Management Study, Branch County, Michigan. This study defines the flood characteristics of Matteson Lake/Little Swan Creek located in Matteson Township, Branch County, Michigan for guidance of local officials in planning the use and regulation of the flood.

The sponsors have adopted resolutions indicating they intend to use the technical information from the floodplain management study as a basis for adopting zoning regulations, health and building codes, subdivision control regulations and such other regulations that may be needed to preserve the environmental quality of their natural resources, and to protect the health, safety, welfare and well-being of the citizens of their communities.

The Michigan Department of Natural Resources, Branch County Road Commission, Branch County Drain Commissioner, Matteson Township, Matteson Kale Association, Branch County Soil Conservation District, and the USDA Soil Conservation Service cooperated in this study.

## SOIL CONSERVATION SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Watershed Planning

For necessary expenses for small watershed investigations and planning, in accordance with the Watershed Protection and Flood Prevention Act, as amended (16 U.S.C. 1001-1008), [$10,921,000] $7,400,000: Provided, That this appropriation shall be available for employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed $50,000 shall be available for employment under 5 U.S.C. 3109.

## Watershed Planning

| | |
|---|---|
| Appropriation Act, 1994 | $10,921,000 |
| Budget Estimate, 1995 | 7,400,000 |
| Decrease in Appropriation | -$3,521,000 |

SUMMARY OF INCREASES AND DECREASES
(on basis of appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Watershed Planning | $10,921,000 | -- | -$3,521,000 | $7,400,000 |

PROJECT STATEMENT
(On basis of appropriation)

| Project | 1993 Amount | 1993 Staff Years | 1994 Estimated Amount | 1994 Estimated Staff Years | Increase or Decrease | 1995 Estimated Amount | 1995 Estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Watershed Planning. | $9,545,000 | 143 | $10,921,000 | 159 | -$3,521,000 | $7,400,000 | 107 |

PROJECT STATEMENT
(On basis of available funds)

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Direct Obligations: | | | | | | | |
| Watershed Planning: | | | | | | | |
| 1. Small watershed planning authorized by PL-566 | $9,518,011 | 143 | $10,921,000 | 159 | -$3,521,000 | $7,400,000 | 107 |
| Unobligated balance lapsing | (+26,989) | -- | -- | -- | -- | -- | -- |
| Total avail. or est | (9,545,000) | (143) | (10,921,000) | (159) | (-3,521,000) | (7,400,000) | (107) |
| Reimbursable oblig. | 141,950 | 2 | 200,000 | 2 | -- | 200,000 | 2 |
| Obligational auth.. | $9,659,961 | 145 | $11,121,000 | 161 | -$3,521,000 | $7,600,000 | 109 |

SOURCES OF REIMBURSEMENTS

| | 1993 Actual | 1994 Estimated | Increase or Decrease | 1995 Estimated |
|---|---|---|---|---|
| Within USDA | $3,121 | $5,000 | -- | $5,000 |
| Other Federal Sources | -- | -- | -- | -- |
| Non-federal Sources | 138,829 | 195,000 | -- | 195,000 |
| Total reimbursements | $141,950 | $200,000 | -- | $200,000 |

OUTLAYS

| | 1993 Actual | 1994 Estimated | Increase or Decrease | 1995 Estimated |
|---|---|---|---|---|
| Small watershed planning authorized by PL-566 | $9,727,917 | $10,715,000 | -$2,752,000 | $7,963,000 |

## EXPLANATION OF PROGRAM

The appropriation "Watershed Planning," funds activities authorized by the Watershed Protection and Flood Prevention Act (Public Law 83-566), as amended, which relate to planning of individual watershed projects.

The Department makes surveys of proposed small watershed projects and prepares plans in cooperation with local sponsors. The planning activities consist of:

-- Cooperation between the Federal Government and State governments and their political subdivisions in assisting local sponsoring organizations develop plans for proposed watershed projects,

-- Conducting surveys and investigations to determine the land and water resource problems and opportunities within the watershed,

-- Studying alternatives to provide the best combination of land treatment, nonstructural, and structural measures for the protection, conservation, development, management, and utilization of land, water, and related resources,

-- Compiling information that is the basis for mutual agreement by the Department, local organizations, and the public concerning the possible alternative solutions which will best meet environmental, social, and economic goals,

-- Making environmental assessments concurrently with other planning efforts for every proposed watershed project, and

-- Preparing environmental impact statements when applicable and making them available to the public.

The watershed plans:

-- Identify the soil and water management problems in the watershed.

-- List the steps that have been or are authorized to be taken to alleviate these problems.

-- Outline the proposed works of improvement to be installed.

-- Itemize the estimated benefits and costs.

-- Set out the cost-sharing and operation and maintenance arrangements.

-- Present other facts necessary to justify Federal participation in project development.

The following table lists actual and projected progress for small watershed applications, planning, and operations.

| Activity | 1993 Actual | 1994 Estimate | 1995 Estimate |
|---|---|---|---|
| 1. Application for planning assistance: | | | |
| On hand | 280 | 285 | 290 |
| 2. Status of planning: | | | |
| Approved for planning during year | 33 | 37 | 0 |
| Locally implemented | (7) | (7) | (0) |
| Federally implemented | (26) | (30) | (0) |

| Activity | 1993 Actual | 1994 Estimate | 1995 Estimate |
|---|---|---|---|
| Planning completed during year..... | 25 | 29 | 15 |
| Locally implemented..... | (3) | (4) | (3) |
| Federally implemented..... | (22) | (25) | (12) |
| Planning in process..... | 94 | 102 | 87 |
| Locally implemented..... | (19) | (22) | (19) |
| Federally implemented..... | (75) | (80) | (68) |
| 3. Status of projects in operations: | | | |
| Active projects..... | 605 | 630 | 624 |
| Approved for operations during year.. | 22 | 25 | -- |

JUSTIFICATION OF INCREASES AND DECREASES

A decrease of $3,521,000 is requested for Small Watershed Planning authorized by PL-566 consisting of:

(a) A decrease of $318,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, SCS is reducing employment in this program from the FY 1993 base by 3.5 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(b) A decrease of $57,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $57,000.

Nature of Change. In order to achieve these savings, SCS will reduce discretionary expenses in this program by $57,000 in FY 1995, in areas such as travel, transportation of things, rent and communications, miscellaneous services, and supplies. There would be no significant impact on program operations as long as the agency is funded for the uncontrollable FY 1995 increased pay and inflationary costs.

(c) A decrease of $3,146,000 for program funding.

Need for Change. This decrease is part of a reduction to meet overall USDA budget and spending targets.

Nature of Change. In 1995 planning will continue at a reduced rate on the 102 projects underway at the beginning of the year. Priority would be given to completing plans where local sponsors are willing and able to pay

the costs of measure installation as no Federal funding would be available for project installation beginning in FY 1995. No new planning starts would be initiated. An estimated 15 watershed plans would be completed during the year, about half the 1994 level. There is a loss of 47 staff years associated with this reduction.

Soil Conservation Service
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995
WATERSHED PLANNING

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS |
| ALABAMA..... | $174,864 | 3 | $205,160 | 3 | $139,000 | 2 |
| ALASKA..... | 239,911 | 3 | 281,360 | 3 | 191,000 | 2 |
| ARIZONA..... | 130,001 | 2 | 93,790 | 1 | 64,000 | 1 |
| ARKANSAS..... | 189,999 | 3 | 222,750 | 3 | 151,000 | 2 |
| CALIFORNIA..... | 394,858 | 7 | 439,630 | 9 | 298,000 | 6 |
| COLORADO..... | 99,998 | 2 | 117,240 | 2 | 79,000 | 1 |
| CONNECTICUT.... | 61,101 | 1 | 75,970 | 1 | 51,000 | 1 |
| DELAWARE..... | 99,684 | 2 | 111,370 | 2 | 75,000 | 1 |
| FLORIDA..... | 109,999 | 1 | 117,240 | 1 | 79,000 | 1 |
| GEORGIA..... | 89,910 | 2 | 105,510 | 2 | 71,000 | 1 |
| HAWAII..... | 305,001 | 7 | 252,060 | 6 | 171,000 | 4 |
| IDAHO..... | 114,968 | 2 | 134,820 | 2 | 91,000 | 1 |
| ILLINOIS..... | 118,908 | 0 | 140,680 | 2 | 95,000 | 1 |
| INDIANA..... | 122,970 | 2 | 70,340 | 1 | 48,000 | 1 |
| IOWA..... | 246,396 | 5 | 275,500 | 6 | 187,000 | 4 |
| KANSAS..... | 201,987 | 3 | 222,750 | 3 | 151,000 | 2 |
| KENTUCKY..... | 104,982 | 2 | 117,240 | 2 | 79,000 | 1 |
| LOUISIANA..... | 123,573 | 2 | 146,540 | 2 | 99,000 | 1 |
| MAINE..... | 79,989 | 1 | 105,510 | 1 | 71,000 | 1 |
| MARYLAND..... | 93,000 | 1 | 70,340 | 1 | 48,000 | 1 |
| MASSACHUSETTS.. | 16,599 | 0 | 35,170 | 1 | 24,000 | 1 |
| MICHIGAN..... | 95,001 | 2 | 117,240 | 2 | 79,000 | 1 |
| MINNESOTA..... | 170,001 | 3 | 199,300 | 3 | 135,000 | 2 |
| MISSISSIPPI.... | 99,920 | 2 | 117,240 | 2 | 79,000 | 1 |
| MISSOURI..... | 325,001 | 5 | 398,600 | 7 | 270,000 | 5 |
| MONTANA..... | 150,000 | 3 | 175,350 | 3 | 119,000 | 2 |
| NEBRASKA..... | 285,000 | 5 | 322,400 | 6 | 218,000 | 4 |
| NEVADA..... | 69,926 | 1 | 82,650 | 1 | 56,000 | 1 |
| NEW HAMPSHIRE.. | 207,200 | 3 | 191,600 | 3 | 130,000 | 2 |
| NEW JERSEY..... | 94,057 | 1 | 87,930 | 1 | 60,000 | 1 |
| NEW MEXICO..... | 61,199 | 0 | 174,090 | 3 | 118,000 | 2 |
| NEW YORK..... | 149,721 | 3 | 175,850 | 3 | 119,000 | 2 |
| NORTH CAROLINA. | 180,001 | 2 | 211,020 | 2 | 143,000 | 1 |
| NORTH DAKOTA... | 125,003 | 2 | 146,540 | 2 | 99,000 | 1 |
| OHIO..... | 208,003 | 3 | 246,190 | 4 | 167,000 | 3 |
| OKLAHOMA..... | 391,297 | 8 | 457,220 | 10 | 310,000 | 6 |
| OREGON..... | 119,590 | 2 | 140,680 | 2 | 95,000 | 1 |
| PACIFIC BASIN.. | 55,000 | 1 | 117,240 | 2 | 79,000 | 1 |
| PENNSYLVANIA... | 79,880 | 1 | 117,240 | 1 | 79,000 | 1 |
| PUERTO RICO.... | 99,957 | 1 | 128,960 | 1 | 87,000 | 1 |
| RHODE ISLAND... | 25,000 | 0 | 29,310 | 0 | 20,000 | 0 |
| SOUTH CAROLINA. | 102,100 | 2 | 128,960 | 3 | 87,000 | 2 |
| SOUTH DAKOTA... | 99,783 | 1 | 128,960 | 1 | 87,000 | 1 |
| TENNESSEE..... | 109,998 | 2 | 128,960 | 2 | 87,000 | 1 |
| TEXAS..... | 293,003 | 4 | 328,260 | 4 | 222,000 | 3 |
| UTAH..... | 122,998 | 1 | 117,240 | 1 | 79,000 | 1 |
| VERMONT..... | 41,598 | 1 | 48,770 | 1 | 33,000 | 1 |
| VIRGINIA..... | 99,401 | 1 | 140,680 | 1 | 95,000 | 1 |
| WASHINGTON..... | 99,841 | 2 | 117,240 | 2 | 79,000 | 1 |
| WEST VIRGINIA.. | 209,921 | 1 | 246,190 | 1 | 167,000 | 1 |
| WISCONSIN..... | 99,998 | 2 | 123,100 | 2 | 83,000 | 1 |
| WYOMING..... | 75,000 | 1 | 111,370 | 1 | 75,000 | 1 |
| CHESTER NTC.... | 214,943 | 3 | 239,160 | 3 | 162,000 | 2 |
| FORT WORTH NTC. | 300,630 | 5 | 352,880 | 6 | 247,000 | 4 |
| LINCOLN NTC.... | 337,999 | 5 | 348,190 | 5 | 236,000 | 4 |
| PORTLAND NTC... | 329,262 | 5 | 419,120 | 6 | 284,000 | 4 |
| NATIONL HDQTRS. | 571,253 | 7 | 661,190 | 7 | 448,000 | 4 |
| FOREST SERVICE. | 300,827 | 1 | 303,000 | 1 | 205,000 | 1 |
| Total Available or Estimate... | $9,518,010 | 143 | $10,921,000 | 159 | $7,400,000 | 107 |

# WATERSHED PLANNING

## STATUS OF PROGRAM

The Watershed Protection and Flood Prevention Act, Public Law 83-566, August 4, 1954, provides for cooperation between the Federal Government and the States and their political subdivisions in a program of watershed planning needed to conserve, distribute, develop, protect, restore, and use water. The Department continues to strengthen the mission of water management through integrated resource planning on a watershed basis incorporating ecosystem planning concepts for protecting all the resources in the watershed. The watershed planning work of the Department consists of assisting sponsoring local organizations to develop a plan on watersheds not exceeding 250,000 acres. The water quality, flooding, water and land management, and sedimentation problems in a watershed are described and works of improvement are proposed to alleviate these problems. The resulting watershed plans form the basis for installing needed works of improvement. Plans also include conservation land treatment needed to conserve and protect land, water, and related resources. Plans include estimated benefits and costs, cost-sharing, operation and maintenance arrangements, and other information necessary to justify Federal assistance for carrying out the plan.

## PROGRAM ASSIGNMENTS

The Soil Conservation Service is responsible for administration of the Watershed Planning Program. During FY 1993, the Soil Conservation Service obligated $9,217,184 of the funds for watershed planning.

The Forest Service is responsible for planning the forestry measures for national forest lands and for fire prevention forestry measures on non-Federal forest lands in the watersheds. During FY 1993, the Forest Service obligated $300,826 of the funds for watershed planning.

In addition to those agencies receiving allocations, other Federal agencies are reimbursed for services as needed. The Economic Research Service assists with development of criteria to be used in economic analysis of watershed projects. The Department of the Interior's Bureau of Land Management and Bureau of Indian Affairs are provided funds when needed to plan watershed measures for Federal lands which they administer. The National Oceanic and Atmospheric Administration of the Department of Commerce and the U.S. Geological Survey of the Department of the Interior provide precipitation and runoff data.

## DEVELOPING WATERSHED PLANS

Watershed planning is a coordinated investigation of the physical, environmental, social, and economic conditions specific to a watershed. The plan displays the benefits and opportunities for conservation, development, and management of land, water, and related resources. Planning includes an analysis of alternatives to solve watershed problems and to find the most cost effective, acceptable solution. Watershed planning requires the skills of soil conservationists, economists, hydrologists, geologists, foresters, and engineers. Support is provided by soil scientists, social scientists, biologists, plant technologists, and recreation, environmental and water quality specialists. Interested Federal, State, and local agencies and the general public are given an opportunity and are encouraged to participate in and contribute to the planning process. This assures that works of improvement included in plans are consistent with other programs and are compatible with local, regional and national goals. The watershed plan must be one which the local people are able, willing, and ready to install with assistance provided under the program, and one which they can and will effectively operate and maintain.

Environmental assessments are made by the Soil Conservation Service and others for each watershed being planned. These assessments are integrated into the planning process at the earliest possible stage. Environmental impact statements, when required, and findings of no significant impact are submitted for review and comment

to local, State, and Federal agencies and are available to the general public. This provides an opportunity to obtain formal comments from a wide range of interests during planning.

Current Activities: The Soil Conservation Service (SCS) establishes policy and general criteria to be used to develop watershed plans for directing the watershed purposes to reflect the Department of Agriculture's long-term conservation objectives and overall priorities as set forth in the National Conservation Program. Planning starts approved during FY 1993 were directed to the highest NCP priorities, i.e., erosion control, water quality, water conservation and flood prevention; and to projects that promote rural development; benefit low income and minority groups; and reduce Federal cost share assistance for installation.

During the year, 30 applications were received, and 37 applications were approved for planning from all applications on hand. As of September 30, 1993, there were 277 viable applications for watershed planning assistance on hand.

Watershed Planning Progress by State - September 30, 1993

| State | Applications Received | | Planning Authorized | | Plans Completed | |
|---|---|---|---|---|---|---|
| | No. | Acres | No. | Acres | No. | Acres |
| Alabama | 68 | 4,343,643 | 59 | 3,768,143 | 49 | $2,972,362 |
| Alaska | 2 | 248,000 | 2 | 248,000 | 0 | 0 |
| Arizona | 30 | 2,818,662 | 23 | 1,877,382 | 16 | 1,217,462 |
| Arkansas | 94 | 6,833,358 | 88 | 6,633,205 | 63 | 3,381,394 |
| California | 70 | 4,408,295 | 59 | 3,972,337 | 27 | 1,256,413 |
| Colorado | 43 | 2,772,471 | 39 | 2,486,621 | 22 | 1,380,246 |
| Connecticut | 18 | 372,573 | 18 | 372,573 | 13 | 222,556 |
| Delaware | 8 | 539,163 | 8 | 539,163 | 6 | 411,663 |
| Florida | 45 | 3,263,298 | 43 | 3,176,198 | 30 | 2,151,268 |
| Georgia | 88 | 6,134,171 | 87 | 6,090,571 | 72 | 4,453,063 |
| Hawaii | 16 | 779,242 | 14 | 719,442 | 11 | 629,792 |
| Idaho | 35 | 2,012,049 | 33 | 1,799,939 | 21 | 895,497 |
| Iowa | 72 | 2,012,080 | 63 | 1,463,120 | 53 | 1,251,860 |
| Illinois | 64 | 3,784,929 | 61 | 3,561,899 | 30 | 1,685,550 |
| Indiana | 69 | 5,242,351 | 67 | 5,002,851 | 41 | 2,483,182 |
| Kansas | 102 | 11,353,994 | 78 | 7,956,686 | 61 | 5,774,346 |
| Kentucky | 60 | 3,554,112 | 55 | 3,155,268 | 42 | 2,572,913 |
| Louisiana | 76 | 8,918,418 | 62 | 7,412,868 | 48 | 5,920,975 |
| Maine | 31 | 2,060,337 | 28 | 1,704,737 | 20 | 1,095,054 |
| Maryland | 39 | 1,394,204 | 35 | 1,134,108 | 21 | 521,323 |
| Massachusetts | 17 | 561,274 | 17 | 561,274 | 12 | 460,232 |
| Michigan | 36 | 1,978,932 | 36 | 1,978,932 | 27 | 1,399,926 |
| Minnesota | 39 | 3,032,356 | 35 | 2,782,863 | 19 | 1,697,719 |
| Mississippi | 93 | 6,740,217 | 75 | 5,716,683 | 59 | 4,589,493 |
| Missouri | 67 | 5,808,993 | 47 | 3,523,207 | 31 | 2,165,491 |
| Montana | 33 | 2,166,271 | 32 | 2,154,271 | 21 | 1,398,621 |
| Nebraska | 95 | 8,196,027 | 66 | 4,544,160 | 53 | 3,622,959 |
| Nevada | 17 | 1,814,646 | 17 | 1,814,646 | 6 | 402,962 |
| New Hampshire | 14 | 1,055,082 | 12 | 1,021,382 | 7 | 456,770 |
| New Jersey | 23 | 748,642 | 21 | 669,642 | 15 | 389,347 |
| New Mexico | 45 | 3,532,868 | 44 | 3,366,068 | 30 | 1,767,277 |
| New York | 32 | 1,471,568 | 31 | 1,469,168 | 23 | 965,538 |
| North Carolina | 93 | 5,260,811 | 80 | 4,448,638 | 59 | 2,744,684 |
| North Dakota | 38 | 4,902,646 | 33 | 4,328,196 | 19 | 2,378,471 |
| Ohio | 49 | 5,319,763 | 34 | 3,303,287 | 26 | 2,449,256 |
| Oklahoma | 104 | 10,161,970 | 84 | 8,500,987 | 76 | 7,350,057 |
| Oregon | 36 | 2,776,775 | 34 | 2,467,935 | 24 | 1,210,896 |
| Pacific Basin | 6 | 7,075 | 6 | 7,075 | 1 | 150 |
| Pennsylvania | 50 | 2,198,946 | 41 | 1,851,328 | 31 | 1,499,287 |
| Puerto Rico | 8 | 472,000 | 7 | 397,000 | 4 | 266,002 |
| Rhode Island | 3 | 128,340 | 3 | 128,340 | 1 | 24,100 |
| South Carolina | 76 | 5,269,100 | 69 | 4,459,450 | 57 | 3,643,298 |

| State | Applications Received No. | Applications Received Acres | Planning Authorized No. | Planning Authorized Acres | Plans Completed No. | Plans Completed Acres |
|---|---|---|---|---|---|---|
| South Dakota | 25 | 2,137,612 | 24 | 2,114,879 | 15 | 758,801 |
| Tennessee | 86 | 4,201,147 | 65 | 3,444,727 | 46 | 2,261,732 |
| Texas | 117 | 12,227,475 | 115 | 11,805,745 | 98 | 10,199,744 |
| Utah | 27 | 2,947,530 | 26 | 2,700,530 | 14 | 1,334,287 |
| Vermont | 17 | 1,716,647 | 17 | 1,716,647 | 13 | 1,230,927 |
| Virginia | 50 | 2,727,799 | 48 | 2,653,831 | 41 | 2,291,839 |
| Washington | 35 | 1,648,377 | 33 | 1,568,067 | 20 | 652,296 |
| West Virginia | 47 | 1,884,552 | 43 | 1,695,185 | 32 | 1,250,636 |
| Wisconsin | 42 | 2,336,786 | 41 | 2,254,226 | 28 | 1,468,999 |
| Wyoming | 28 | 2,049,872 | 26 | 2,027,400 | 13 | 615,236 |
| Total | 2,478 | 180,327,449 | 2,184 | 154,550,880 | 1,567 | 103,223,952 |

## SHARING WATERSHED PLANNING COSTS

Watershed planning staffs are available either in-State or through sharing with other States to assist local organizations in all States. A number of States that are undertaking River Basin Surveys under authority of Section 6 of Public Law 83566 have integrated their regular watershed planning staff with the river basin survey staff. This permits efficient use of technical personnel to accomplish both activities and share with other programs (for example, hydrologic unit planning for water quality).

Watershed Planning funds averaged approximately $177,254 per State in 1993 ranging from $16,600 to $394,857. The size of the planning staffs varies according to the workload in each State. There were 30 watershed planning staffs nationwide. Staffs have been combined where individual States do not have sufficient planning workload to justify a complete staff. In most of those states without a planning staff, a water resource coordinator coordinates planning activities with combined staffs and other individual specialists.

In FY 1993 State legislatures and other local organized units in States and Puerto Rico appropriated or otherwise provided about $28,062,678 to finance watershed planning activities. This local input was through advances, reimbursements, State controlled watershed planning staffs, or personnel provided by the States to work with Soil Conservation Service watershed planning staffs.

Planning funds obligated and staff-years used in 1993 by State were:

| State | Direct Obligations | Staff Years | State | Direct Obligations | Staff Years |
|---|---|---|---|---|---|
| Alabama | 174,863 | 3 | Maryland | 93,000 | 1 |
| Alaska | 239,910 | 3 | Massachusetts | 16,600 | 0 |
| Arizona | 130,000 | 2 | Michigan | 94,998 | 2 |
| Arkansas | 189,996 | 3 | Minnesota | 170,000 | 3 |
| California | 394,857 | 7 | Mississippi | 99,922 | 2 |
| Colorado | 99,999 | 2 | Missouri | 325,000 | 5 |
| Connecticut | 61,100 | 1 | Montana | 150,000 | 3 |
| Delaware | 99,682 | 2 | Nebraska | 284,999 | 5 |
| Dist of Co. | | | Nevada | 69,926 | 1 |
| (Nat. Hdq.) | 571,088 | 7 | New Hampshire | 207,199 | 3 |
| Florida | 109,999 | 1 | New Jersey | 94,057 | 1 |
| Georgia | 89,908 | 2 | New Mexico | 61,200 | 0 |
| Hawaii | 305,000 | 7 | New York | 149,722 | 3 |
| Idaho | 114,968 | 2 | North Carolina | 180,000 | 2 |
| Illinois | 118,905 | 0 | North Dakota | 125,000 | 2 |
| Indiana | 122,970 | 2 | Ohio | 208,000 | 3 |
| Iowa | 246,397 | 5 | Oklahoma | 391,300 | 8 |
| Kansas | 201,991 | 3 | Oregon | 119,590 | 2 |
| Kentucky | 104,981 | 2 | Pacific Basin | 55,000 | 1 |
| Louisiana | 123,576 | 2 | Pennsylvania | 79,879 | 1 |
| Maine | 79,992 | 1 | Puerto Rico | 99,955 | 1 |

| State | Direct Obligations | Staff Years | State | Direct Obligations | Staff Years |
|---|---|---|---|---|---|
| Rhode Island | 25,000 | 0 | Washington | 99,841 | 2 |
| South Carolina | 102,100 | 2 | West Virginia | 209,921 | 1 |
| South Dakota | 99,965 | 1 | Wisconsin | 99,998 | 2 |
| Tennessee | 109,996 | 2 | Wyoming | 75,000 | 1 |
| Texas | 293,000 | 4 | Natl Tech Ctr. | 1,182,838 | 18 |
| Utah | 123,000 | 1 | SCS Wtrshd Plng. | 9,217,183 | 142 |
| Vermont | 41,596 | 1 | Alloc. Acct. | 300,826 | 1 |
| Virginia | 99,399 | 1 | Total Watershed Planning, SCS | 9,518,009 | 143 |

SELECTED EXAMPLES OF WATERSHEDS AUTHORIZED FOR PLANNING IN FISCAL YEAR 1993

Watershed projects are actively being planned in all regions of the nation and in the Caribbean and Pacific areas. These projects are being formulated to address the broad range of eligible project purposes. Projects are currently being planned for floodwater damage reduction, water quality improvement, protection and improvement of critical fish and wildlife habitat, water conservation, watershed protection, and for the development of agricultural and rural water supplies. Planning was started on a total of 37 watershed projects in fiscal year 1993. The following briefly describes two projects that are currently being planned. These projects illustrate the type and scope of projects currently being developed as Public Law 83-566 Projects.

Delta Clearwater River Watershed - Alaska. This 230,000 acre watershed is located approximately 15 miles southeast of the community of Delta Junction, Alaska. The purposes of this project are floodwater damage reduction and wildlife enhancement. The Clearwater River is a spring fed river that does not normally receive direct runoff and as a result does not flush sediments that are deposited in the river. At the present time the river provides the best spawning habitat on the Yukon River System for the Coho Salmon. It is also one of the most popular Arctic Grayling fisheries in Alaska. Sediment laden flood waters are seriously threatening the rivers spawning habitat and recreational values. In addition, the watershed contains about 58,000 acres of Delta Bison Range. This bison range houses one of the largest free roaming bison herds in the world and there is an opportunity to improve the habitat within this range.

The measures being considered for installation as a part of the watershed plan are water spreading structures, dikes, stream bank shaping and bio-engineering. Two wildlife watering facilities and other improvements are also being planned for the bison range to improve the habitat. The plan is expected to be completed in September 1994.

Swan Creek Watershed - Michigan. This 70,500 acre watershed is being planned to improve water quality in Swan Creek and in Matteson, Long, and Palmer Lakes. Issues being addressed in the plan include:(1) degraded drinking water supply, (2) decreased sport fishery, (3) accelerated lake eutrophication, leading to decreased recreation days for fishing, swimming and boating, and (4) increased channel clean out cost.

The plan will address the nonpoint sources of pollution. Actions most likely to be included in the plan include conservation tillage, cover and green manure crops, pasture and hay land planting, windbreaks, critical area planting, waterways, stream channel stabilization, tree planting, water and sediment control basins, filter strips grade stabilization structures, diversions, and animal waste systems. The total construction cost of these items is expected to be almost $1,000,000 with the local cost amounting to almost $750,000 and the PL-83-566 cost share amounting to only about $250,000.

# SOIL CONSERVATION SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Watershed and Flood Prevention Operations

For necessary expenses to carry out preventive measures, including but not limited to research, engineering operations, methods of cultivation, the growing of vegetation, rehabilitation of existing works and changes in use of land, in accordance with the Watershed Protection and Flood Prevention Act approved August 4, 1954, as amended (16 U.S.C. 1001-1005, 1007-1009), the provisions of the Act of April 27, 1935 (16 U.S.C. 590a-f), and in accordance with the provisions of laws relating to the activities of the Department, [$241,965,000]
1 $25,000,000 [(of which $40,786,000 shall be available for the watersheds authorized under the Flood Control Act approved June 22, 1936 (33 U.S.C. 701, 16 U.S.C. 1006a), as amended and supplemented)]: Provided, That this appropriation shall be available for employment pursuant to the second sentence of section
2 706(a) of the Organic Act of 1944 (7 U.S.C. 2225)[, and not to exceed $28,631,000 shall be available for emergency measures as provided by sections 403-405 of the Agricultural Credit Act of 1978 (16 U.S.C. 2203-2205)], and not to exceed $200,000 shall be available for employment under 5 U.S.C. 3109: Provided further, That $4,000,000 in loans may be insured, or made to be sold and insured, under the Agricultural Credit Insurance Fund of the Farmers Home Administration (7 U.S.C. 1931): Provided further, That not to exceed $1,000,000 of this appropriation is available to carry out the purposes of the Endangered Species Act of 1973 (Public Law 93-205), as amended, including cooperative efforts as contemplated by that Act to relocate endangered or threatened species to other suitable habitats as may be necessary to expedite project construction.

The first change deletes language providing funding for watersheds authorized under the Flood Control Act of 1944, P.L. 75-534, as no funding is proposed for this program in the FY 1995 budget.

The second change deletes language providing funding for the emergency watershed protection program as no funding is proposed for this program in the FY 1995 budget.

## Watershed and Flood Prevention Operations

| | Watersheds Authorized by PL-534 | Emergency Watershed Operations | Small Watersheds Authorized by PL-566 | Total Watershed and Flood Prevention |
|---|---|---|---|---|
| Appropriation Act, 1994..... | $40,786,000 | $53,631,000 | $172,548,000 | $266,965,000 |
| Budget Estimate, 1995..... | -- | -- | 25,000,000 | 25,000,000 |
| Decrease in Appropriation..... | -$40,786,000 | -$53,631,000 | -$147,548,000 | -$241,965,000 |

### SUMMARY OF INCREASES AND DECREASES
(on basis of appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Watershed and Flood Prev. Oper: | | | | |
| 1. Watershed oper. auth by PL-534.. | $40,786,000 | -- | -$40,786,000 | -- |
| 2. Emergency watershed prot. oper.. | 53,631,000 | -- | -53,631,000 | -- |
| 3. Small watersheds auth. by PL-566 | 172,548,000 | -- | -147,548,000 | $25,000,000 |
| TOTAL AVAILABLE..... | $266,965,000 | -- | -$241,965,000 | $25,000,000 |

### PROJECT STATEMENT
(On basis of appropriation)

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 1. Watershed operations authorized by PL-534: | | | | | | | |
| (a) Planning..... | $1,117,000 | 18 | $1,208,000 | 18 | -$1,208,000 | -- | -- |
| (b) Technical assistance..... | 15,321,000 | 260 | 16,577,000 | 247 | -16,577,000 | -- | -- |
| (c) Financial assistance for construction: | | | | | | | |
| Direct Federal contracting..... | 19,780,000 | -- | 19,086,000 | -- | -19,086,000 | -- | -- |
| Payment for contracting by local sponsors.. | 3,974,000 | -- | 3,835,000 | -- | -3,835,000 | -- | -- |
| (d) Loan serv.(RDA) | 80,000 | 2 | 80,000 | 2 | -80,000 | -- | -- |
| Subtotal, flood prevention..... | 40,272,000 | 280 | 40,786,000 | 267 | -40,786,000(1 | -- | -- |
| 2. Emergency Watershed Protection Operation | 73,144,000 | 270 | 53,631,000 | 250 | -53,631,000(2) | -- | -- |
| 3. Small watersheds authorized by PL-566: | | | | | | | |
| (a) Technical assistance..... | 63,662,500 | 1,047 | 65,447,000 | 990 | -40,447,000 | $25,000,000 | 371 |
| (b) Financial assistance for construction: | | | | | | | |
| Direct Federal contracting.... | 56,750,000 | -- | 59,877,000 | -- | -59,877,000 | -- | -- |
| Payment for contracting by local sponsors. | 44,593,000 | -- | 47,051,000 | -- | -47,051,000 | -- | -- |
| (c) Loan services.. | 172,500 | 5 | 173,000 | 5 | -173,000 | -- | -- |
| Subtotal, watershed operations..... | 165,178,000 | 1,052 | 172,548,000 | 995 | -147,548,000(3) | 25,000,000 | 371 |
| Total Appropriation.. | $278,594,000 | 1,602 | $266,965,000 | 1,512 | -$241,965,000 | $25,000,000 | 371 |

NOTE: A supplemental request of $340,500,000 is proposed for FY 1994 for additional emergency watershed protection assistance in the Midwest flood and California fire areas. The 1994 Emergency Watershed Protection program includes $25,000,000 made available in 1994 from 1993 supplemental funding.

PROJECT STATEMENT
(On basis of available funds)

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| 1. Watershed operations authorized by PL-534: | | | | | | | |
| (a) Planning | $1,188,364 | 18 | $1,168,000 | 18 | -$1,168,000 | -- | -- |
| (b) Technical assistance | 16,907,334 | 260 | 16,617,000 | 247 | -16,617,000 | -- | -- |
| (c) Financial assistance for construction: | | | | | | | |
| Direct Federal contracting | 18,270,245 | -- | 23,820,444 | -- | -23,820,444 | -- | -- |
| Payment for contracting by local sponsors | 5,810,105 | -- | 7,574,000 | -- | -7,574,000 | -- | -- |
| (d) Loan services | 80,000 | 2 | 80,000 | 2 | 80,000 | -- | -- |
| Subtotal, flood prevention | 42,256,048 | 280 | 49,259,444 | 267 | -49,259,444 | -- | -- |
| 2. Emergency Watershed Protection Oper. | 80,006,995 | 270 | 103,857,622 | 250 | -103,857,622 | -- | -- |
| 3. Small watersheds authorized by PL-566: | | | | | | | |
| (a) Technical assistance | 67,858,837 | 1,047 | 66,079,000 | 990 | -41,079,000 | $25,000,000 | 371 |
| (b) Financial assistance for construction: | | | | | | | |
| Direct Federal contracting | 60,676,576 | -- | 86,943,080 | -- | -86,943,080 | -- | -- |
| Payment for contracting by local sponsors | 30,125,261 | -- | 43,167,000 | -- | -43,167,000 | -- | -- |
| (c) Loan services | 172,500 | 5 | 172,500 | 5 | -172,500 | -- | -- |
| Subtotal, watershed operations | 158,833,174 | 1,052 | 196,361,580 | 995 | -171,361,000 | 25,000,000 | 371 |
| Total direct obligations | 281,096,217 | 1,602 | 349,478,646 | 1,512 | -324,478,646 | 25,000,000 | 371 |
| Unobligated balance brought forward | (-85,746,758) | -- | (-82,513,646) | -- | +82,513,646 | -- | |
| Unobligated balance carried forward | (+82,513,646) | -- | -- | -- | -- | -- | -- |
| Unobligated balance lapsing | (+730,895) | -- | -- | -- | -- | -- | -- |
| Appropriation | ($278,594,000) | 1,602 | ($266,965,000) | 1,512 | (-$241,965,000) | ($25,000,000) | 371 |

REIMBURSABLE OBLIGATIONS

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Reimbursable obligations: | | | | | | | |
| 1. Watershed operations authorized by PL-534: | | | | | | | |
| (a) Planning | -- | -- | -- | -- | -- | -- | -- |
| (b) Technical assistance | $172,370 | 3 | $750,000 | 25 | $750,000 | -- | -- |

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| (c) Financial assistance for construction: Direct Federal contracting | 1,944,336 | -- | 750,000 | -- | -750,000 | -- | -- |
| Subtotal, flood prevention | 2,116,706 | 3 | 1,500,000 | 25 | -1,500,000 | -- | -- |
| 2. Emergency Watershed Protection Operation | 2,061,427 | 0 | 3,000,000 | 0 | -3,000,000 | -- | -- |
| 3. Small watersheds authorized by PL-566: (a) Technical assistance | 1,453,360 | 22 | 150,000 | 5 | 150,000 | -- | -- |
| (b) Financial assistance for construction: Direct Federal contracting | 12,160,968 | -- | 5,350,000 | -- | -5,350,000 | -- | -- |
| Subtotal, watershed operations | 13,614,328 | 22 | 5,500,000 | 5 | -5,500,000 | -- | -- |
| Total, reimbursable obligations | 17,792,461 | 25 | 10,000,000 | 30 | -10,000,000 | -- | -- |
| Obligational authority | $298,888,678 | 1,627 | $359,478,646 | 1,542 | -$334,478,646 | $25,000,000 | 371 |

SOURCES OF REIMBURSEMENTS

| | 1993 Actual | 1994 estimated | Increase or Decrease | 1995 estimated |
|---|---|---|---|---|
| Within USDA | $28,317 | $43,000 | -$43,000 | -- |
| Other Federal Agencies | 2,362,098 | 2,257,000 | -2,257,000 | -- |
| Non-Federal Sources | 15,402,046 | 7,700,000 | -7,700,000 | -- |
| Total reimbursements | $17,792,461 | $10,000,000 | -$10,000,000 | -- |

OUTLAYS

| | 1993 Actual | 1994 estimated | Increase or Decrease | 1995 estimated |
|---|---|---|---|---|
| 1. Watershed operations authorized by PL-534 | $28,795,031 | $43,525,000 | -$19,764,000 | $23,761,000 |
| 2. Emergency Watershed Protection Operations | 64,429,069 | 177,204,000 | -125,052,000 | 52,152,000 |
| 3. Small watersheds authorized by PL-566 | 142,838,151 | 80,522,000 | -51,830,000 | 28,692,000 |
| Total Outlays | $236,062,251 | $301,251,000 | -$196,646,000 | $104,605,000 |

EXPLANATION OF PROGRAM

The appropriation "Watershed and Flood Prevention Operations" funds those activities authorized by the Watershed Protection and Flood Prevention Act, as amended (16 U.S.C. 1001-1005, 1007-1009) and the Flood Control Act, as amended and supplemented (33 U.S.C. 701, 16 U.S.C. 1006a) and Sections 403-405 of the Agricultural Credit Act of 1978 (16 U.S.C. 2203-2205), which relate to installation of individual watershed projects, flood prevention subwatershed projects, and emergency watershed protection. Activities include:

Watershed Operations Authorized by PL-534

The planning criteria, economic justifications, local sponsorship requirements, costsharing criteria, and other policies and procedures used in the Flood Prevention Program have been adjusted to generally parallel those of the Watershed Protection Program. The Department helps install watershed improvement measures to reduce flood, sediment, and erosion damages; further the conservation, development, utilization, and disposal of water; further the conservation and proper utilization of land; and to accomplish other measures incorporated in subwatershed work plans.

The following table shows the status of subwatershed work plans:

| Subwatersheds Status | 1993 | 1994 | 1995 |
|---|---|---|---|
| Projects receiving land treatment..... | 52 | 52 | -- |
| Structural projects..... | 67 | 67 | -- |
| Subtotal active subwatersheds..... | 119 | 119 | -- |
| Projects continuing post-instal assistance.... | 190 | 190 | -- |
| Inactive projects..... | 9 | 9 | 318 |
| Total operational subwatersheds..... | 318 | 318 | 318 |
| Unserviced applications..... | 86 | 86 | 86 |
| Planning in process..... | 24 | 24 | 24 |
| Total subwatersheds..... | 428 | 428 | 428 |

Emergency Watershed Protection Operations

Funding authority for FY 1993 is requested under Sections 403-05 of the Agricultural Credit Act of 1978. Funding is for such emergencies for runoff retardation and soil erosion prevention as may be needed to safeguard life and property from floods and the products of erosion on any watershed whenever flood, fire, drought, or any other natural element causes a sudden impairment of the watershed. The Department administers the program by providing technical assistance and arranging with local contractors to install most of the required measures.

Small Watershed Operations Authorized by PL-566

The Department provides technical and financial assistance to local organizations to install the watershed works of improvement for watershed protection, flood prevention, agricultural water management, recreation, and fish and wildlife development, and other authorized features specified in the work plans.

The following table shows the status of PL-566 watershed projects:

| Status of Operational Projects | 1993 | 1994 | 1995 |
|---|---|---|---|
| Projects receiving land treatment..... | 186 | 201 | -- |
| Structural projects..... | 368 | 363 | -- |
| Land treatment and structural..... | 51 | 64 | -- |
| Subtotal active projects..... | 605 | 628 | -- |
| Projects continuing post-instal assistance.... | 787 | 787 | -- |
| Inactive projects..... | 22 | 23 | 1,438 |
| Deauthorized projects..... | 142 | 143 | 143 |
| Total operational projects..... | 1,556 | 1,581 | 1,581 |
| New projects approved during year..... | 22 | 25 | -- |

JUSTIFICATION OF INCREASES AND DECREASES

(1) A decrease of $40,786,000 is requested for the Flood Prevention Operations Program authorized by PL-534 consisting of:

(a) A decrease of $705,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment,

SCS is reducing employment in this program from the FY 1993 base by 4.4 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(b) A decrease of $40,081,000 for program funding.

Need for Change. This decrease is part of a reduction to meet overall USDA budget and spending targets.

Nature of Change. This program would be phased out beginning in the last quarter of fiscal year 1994. Unobligated balances available within the Watershed and Flood Prevention Operations account at the end of FY 1994 would be used to carry out an orderly phase out of ongoing work. No new appropriated funds for 1995 are requested and new contracting would be limited after July 1, 1994.

(2) A decrease of $53,631,000 is requested for the Emergency Watershed Operations Program consisting of:

(a) A decrease of $64,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, SCS is reducing employment in this program from the FY 1993 base by 0.4 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(b) A decrease of $53,567,000 for program funding.

Need for Change. This decrease is part of a reduction to meet overall USDA budget and spending targets.

Nature of Change. The 1994 supplemental should adequately address any unforeseen emergencies in 1995.

(3) A decrease of $147,548,000 is requested for the Watershed Operations Program authorized by PL-566 consisting of:

(a) A decrease of $1,987,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, SCS is reducing employment in this program from the FY 1993 base by 3.0 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(b) A decrease of $145,561,000 for program funding.

Need for Change. This decrease is part of a reduction to meet overall USDA budget and spending targets.

Nature of Change. This program will be phased out beginning in the last quarter of fiscal year 1994. The $25,000,000 requested for FY 1995 along with any unobligated balances remaining available within the Watershed and Flood Prevention Operations account at the end of FY 1994 would be used to carry out an orderly phase out of ongoing work. New contracting would be limited after July 1, 1994. Technical assistance would be provided to those project sponsors who can obtain loans or non-federal funding for continued installation of remaining small watershed projects.

Distribution of Funds by Agency for Operating Flood Prevention Projects

| | 1993 Obligations | Brought Forward from 1993 | 1994 Appropriation (adjusted) | Estimated Obligations 1994 | Budget Estimate 1995 |
|---|---|---|---|---|---|
| SOIL CONSERVATION SERVICE | | | | | |
| Buffalo Creek, NY..... | 65,547 | -- | 377,723 | 377,723 | -- |
| Colorado (Middle), Texas.. | 2,650,287 | -- | 1,199,120 | 1,199,120 | -- |
| Coosa, Georgia, Tennessee ..... | -- | -- | -- | -- | -- |
| Little Sioux, Iowa..... | 3,187,798 | -- | 3,292,783 | 3,292,783 | -- |
| Little Tallahatchie, MS.. | 2,650,287 | -- | 1,924,587 | 1,924,587 | -- |
| Los Angeles, California... | -- | -- | 179,868 | 179,868 | -- |
| Potomac, MD, PA, VA,.W. VA | 10,255,493 | 5,509,444 | 8,681,627 | 14,191,071 | -- |
| Santa Ynez, California.... | 155,482 | -- | 119,912 | 119,912 | -- |
| Trinity, Texas..... | 10,650,395 | -- | 4,286,853 | 4,286,853 | -- |
| Washita, Oklahoma, Texas.. | 3,025,551 | -- | 4,083,003 | 4,083,003 | -- |
| Yazoo, Mississippi..... | 7,583,153 | 2,964,000 | 14,540,524 | 17,504,526 | -- |
| Subtotal, SCS..... | 40,223,993 | 8,473,444 | 38,686,000 | 47,159,444 | -- |
| FOREST SERVICE a/ | | | | | |
| Little Sioux, Iowa..... | -- | -- | -- | -- | -- |
| Little Tallahatchie, MS... | -- | -- | -- | -- | -- |
| Los Angeles, California... | 1,154,404 | -- | 1,180,000 | 1,180,000 | -- |

| | 1993 Obligations | Brought Forward from 1993 | 1994 Appropriation (adjusted) | Estimated Obligations 1994 | Budget Estimate 1995 |
|---|---|---|---|---|---|
| Potomac, MD, PA, VA, W. VA | 172,020 | -- | 84,000 | 84,000 | -- |
| Santa Ynez, California.... | 507,523 | -- | 646,000 | 646,000 | -- |
| Trinity, Texas..... | 78,365 | -- | 68,000 | 68,000 | -- |
| Washita, Oklahoma, Texas.. | 39,744 | -- | 42,000 | 42,000 | -- |
| Yazoo, Mississippi..... | -- | -- | -- | -- | -- |
| Subtotal, Forest Service | 1,952,056 | -- | 2,020,000 | 2,020,000 | -- |
| | | | | | -- |
| FARMERS HOME ADMINISTRATION | | | | | -- |
| Loan Services..... | 80,000 | -- | 80,000 | 80,000 | -- |
| Total, P.L.-534 operations.. | $42,256,049 | $8,473,444 | $40,786,000 | $49,259,444 | -- |

PL-566 Project Activity and Obligations

The following table shows the status of Public Law 566 projects by stage of assistance and amounts obligated or estimated to be obligated.

| | 1993 NO. | 1993 Dollars in Thousands | 1994 NO. | 1994 Dollars in Thousands | 1995 NO. | 1995 Dollars in Thousands |
|---|---|---|---|---|---|---|
| 1. Projects approved for operation and estimated cost of completion: | | | | | | |
| a. Uncompleted projects at start of year.... | 745 | $1,306,559 | 769 | $1,191,593 | 794 | $1,045,232 |
| b. Projects approved during year..... | 22 | 43,867 | 25 | 50,000 | -- | -- |
| Total..... | 767 | 1,350,426 | 794 | 1,241,593 | 794 | 1,045,232 |
| 2. Status of projects and amounts obligated: | | | | | | |
| a. Projects inactive end of year..... | 22 | -- | 23 | -- | 23 | -- |
| b. Deauthorized, cumulative..... | 142 | -- | 143 | -- | 143 | -- |
| c. Watershed protection projects services .. | 186 | 25,000 | 201 | 25,000 | 201 | 25,000 |
| d. Projects continuing construction and land treatment..... | 419 | 131,433 | 427 | 169,361 | 427 | -- |
| e. Projects with construction completed continuing post installation assistance..... | 787 | 2,400 | 787 | 2,000 | 787 | -- |
| Subtotal..... | 1,556 | 158,833 | 1,581 | 196,361 | 1,581 | 25,000 |
| 3. Uncompleted projects (cumulative) at end of year: | | | | | | |
| a. Obligations to date. | 769 | 2,706,765 | 794 | 2,901,126 | 794 | 2,926,126 |
| b. Estimated cost of completion..... | -- | 1,191,593 | -- | 1,045,232 | -- | 1,020,232 |
| 4. Projects completed construction (cumulative and total cost)..... | 787 | 1,026,814 | 787 | 1,028,814 | 787 | 1,028,814 |
| 5. Total projects approved (cumulative and total cost)..... | 1,556 | 4,925,172 | 1,581 | 4,975,172 | 1,581 | 4,975,172 |
| Total (cumulative obligations)..... | 1,556 | $3,733,579 | 1,581 | $3,929,940 | 1,581 | $3,954,940 |

Soil Conservation Service
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995
WATERSHED AND FLOOD PREVENTION OPERATIONS

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS | ANOUNT | STAFF YEARS |
| ALABAMA..... | $2,746,696 | 16 | $2,732,850 | 16 | $224,000 | 4 |
| ALASKA ..... | 2,750,379 | 3 | 71,180 | 1 | 17,000 | 0 |
| ARIZONA..... | 7,545,743 | 38 | 5,338,850 | 21 | 337,000 | 5 |
| ARKANSAS..... | 4,373,756 | 28 | 5,437,240 | 27 | 403,000 | 7 |
| CALIFORNIA..... | 8,102,356 | 37 | 13,732,450 | 47 | 874,000 | 12 |
| COLORADO..... | 3,000,101 | 11 | 4,786,670 | 12 | 177,000 | 3 |
| CONNECTICUT.... | 1,250,593 | 10 | 770,740 | 8 | 128,000 | 2 |
| DELAWARE..... | 660,013 | 7 | 874,390 | 7 | 108,000 | 2 |
| FLORIDA..... | 18,308,688 | 58 | 1,287,620 | 8 | 132,000 | 2 |
| GEORGIA..... | 3,538,710 | 17 | 4,305,190 | 12 | 225,000 | 3 |
| HAWAII..... | 5,598,179 | 12 | 2,402,380 | 9 | 222,000 | 2 |
| IDAHO..... | 1,452,231 | 13 | 718,180 | 10 | 149,000 | 2 |
| ILLINOIS..... | 5,159,600 | 20 | 21,128,300 | 61 | 1,074,000 | 16 |
| INDIANA..... | 594,922 | 11 | 2,217,300 | 11 | 155,000 | 3 |
| IOWA..... | 10,804,103 | 58 | 29,832,340 | 117 | 1,686,000 | 30 |
| KANSAS..... | 6,635,223 | 40 | 18,705,660 | 74 | 1,017,000 | 19 |
| KENTUCKY..... | 3,331,491 | 27 | 2,485,620 | 11 | 182,000 | 3 |
| LOUISIANA..... | 13,414,306 | 69 | 5,711,650 | 22 | 289,000 | 5 |
| MAINE..... | 769,028 | 11 | 1,013,070 | 9 | 143,000 | 2 |
| MARYLAND..... | 704,271 | 3 | 510,230 | 3 | 82,000 | 1 |
| MASSACHUSETTS.. | 974,799 | 9 | 1,043,320 | 8 | 142,000 | 2 |
| MICHIGAN..... | 1,338,974 | 13 | 1,751,830 | 11 | 168,000 | 3 |
| MINNESOTA..... | 2,133,877 | 21 | 5,348,700 | 23 | 361,000 | 6 |
| MISSISSIPPI.... | 22,689,434 | 188 | 41,108,790 | 179 | 2,341,000 | 46 |
| MISSOURI..... | 9,016,807 | 43 | 25,797,390 | 70 | 1,292,000 | 18 |
| MONTANA..... | 1,160,132 | 13 | 1,132,550 | 11 | 177,000 | 3 |
| NEBRASKA..... | 2,909,985 | 19 | 3,804,690 | 20 | 301,000 | 5 |
| NEVADA..... | 229,693 | 3 | 79,320 | 1 | 19,000 | 0 |
| NEW HAMPSHIRE.. | 389,997 | 6 | 277,920 | 5 | 67,000 | 1 |
| NEW JERSEY..... | 876,659 | 13 | 1,116,670 | 10 | 164,000 | 2 |
| NEW MEXICO..... | 13,370,814 | 24 | 3,711,600 | 21 | 345,000 | 5 |
| NEW YORK..... | 1,612,005 | 13 | 5,779,640 | 11 | 183,000 | 3 |
| NORTH CAROLINA. | 5,304,837 | 29 | 3,754,820 | 21 | 316,000 | 5 |
| NORTH DAKOTA... | 630,364 | 7 | 1,886,130 | 13 | 212,000 | 3 |
| OHIO..... | 3,784,181 | 19 | 4,573,400 | 18 | 304,000 | 4 |
| OKLAHOMA..... | 9,926,490 | 86 | 11,181,850 | 78 | 1,110,000 | 20 |
| OREGON..... | 1,472,919 | 11 | 1,668,950 | 11 | 169,000 | 3 |
| PACIFIC BASIN.. | 589,007 | 4 | 729,100 | 5 | 72,000 | 1 |
| PENNSYLVANIA... | 1,263,504 | 23 | 7,012,100 | 21 | 327,000 | 5 |
| PUERTO RICO.... | 4,812,991 | 21 | 1,308,730 | 10 | 195,000 | 2 |
| RHODE ISLAND... | 105,002 | 2 | 103,720 | 2 | 25,000 | 0 |
| SOUTH CAROLINA. | 1,772,989 | 19 | 2,407,070 | 13 | 153,000 | 3 |
| SOUTH DAKOTA... | 174,306 | 3 | 1,828,810 | 11 | 164,000 | 3 |
| TENNESSEE..... | 3,437,558 | 26 | 5,124,236 | 31 | 536,000 | 8 |
| TEXAS..... | 30,217,134 | 121 | 13,152,840 | 97 | 1,509,000 | 25 |
| UTAH..... | 889,492 | 13 | 1,785,130 | 10 | 156,000 | 3 |
| VERMONT..... | 1,090,816 | 10 | 1,160,230 | 8 | 144,000 | 2 |
| VIRGINIA..... | 3,769,768 | 30 | 7,439,700 | 23 | 436,000 | 6 |
| WASHINGTON..... | 1,322,093 | 19 | 3,650,590 | 16 | 286,000 | 4 |
| WEST VIRGINIA.. | 25,128,193 | 71 | 39,678,445 | 50 | 1,107,000 | 13 |
| WISCONSIN..... | 4,202,216 | 13 | 5,150,120 | 14 | 220,000 | 4 |
| WYOMING..... | 739,473 | 5 | 324,770 | 4 | 58,000 | 1 |
| CHESTER NTC.... | 1,628,786 | 21 | 1,512,120 | 17 | 366,000 | 4 |
| FORT WORTH NTC. | 2,509,307 | 36 | 2,254,460 | 29 | 546,000 | 7 |
| LINCOLN NTC.... | 1,727,002 | 27 | 1,827,880 | 26 | 443,000 | 6 |
| PORTLAND NTC... | 1,252,335 | 17 | 1,139,940 | 14 | 276,000 | 4 |
| NATIONL HDQTRS. | 10,863,767 | 75 | 11,092,675 | 71 | 2,686,000 | 18 |
| FmHA..... | 252,500 | 7 | 252,500 | 7 | 0 | 0 |
| FOREST SERVICE. | 4,785,623 | 33 | 2,464,000 | 36 | 0 | 0 |
| Total Available or Estimate... | $281,096,218 | 1,602 | $349,478,646 | 1,512 | $25,000,000 | 371 |

# WATERSHED AND FLOOD PREVENTION OPERATIONS

## STATUS OF PROGRAMS

Watershed operations authorized by Public Law 534. The Flood Control Act of 1944 authorizes the Secretary of Agriculture to install watershed improvement measures to reduce flood, sedimentation, and erosion damages; further the conservation, development, utilization, and disposal of water; and the conservation and proper utilization of land. Flood prevention work is authorized in the eleven watersheds designated in the Flood Control Act of December 22, 1944.

Emergency Watershed Protection. Emergency watershed protection assistance is provided to reduce hazards to life and property in watersheds damaged by severe natural events. An emergency is considered to exist when a watershed is suddenly impaired by flood, fire, drought or other natural causes which results in life and property being endangered by flooding, erosion, or sediment discharge.

The emergency area need not be declared a national disaster area to be eligible for technical and financial assistance. Emergency watershed protection is applicable to small scale localized disasters as well as disasters of national magnitude.

Funding is authorized under Sections 403-405 of the Agricultural Credit Act of 1978.

Watershed Projects authorized by Public Law 566. The Watershed Protection and Flood Prevention Act of 1954, provides for cooperation between the Federal government and the States and their political subdivisions in a program to prevent erosion, floodwater, and sediment damages; to further the conservation, development, utilization, and disposal of water; and to further the conservation and proper utilization of land in authorized watersheds.

The flood prevention (PL-534) and the watershed (PL-566) programs have similar objectives. The planning criteria, economic justifications, local sponsorship requirements, cost-sharing criteria, structural limitations, and other policies and procedures used in flood prevention projects generally parallel those used in watershed protection projects.

Current activities:

1. Technical and financial assistance for construction includes:

    a. Land treatment measures: Assurance that a program of proper land use and treatment will be carried out is a basic requirement for assistance in the development of flood prevention subwatersheds or watershed projects. The Department provides landowners and operators technical assistance to accelerate the planning and application of land treatment measures which help achieve project objectives. This accelerated assistance is in addition to that received under other conservation programs.

        When land treatment measures are installed to achieve justified offsite flood prevention benefits or when such measures provide small or long-deferred benefits to the landowner, the installation cost may be shared with Federal funds. The cost-share rate of this financial assistance may not exceed the rate of assistance for similar practices under other conservation programs of the Department. This work is accomplished through project agreements with local sponsoring organizations. The local sponsors arrange for and accomplish the work by contract or force account. Payments are made by the Federal government to the local sponsoring organizations as the land treatment measures are installed.

    b. Structural measures: Floodwater retarding structures, stream channel work, grade stabilization and sediment control structures, water storage structures, and other structures are integral parts of providing watershed protection. Detailed construction plans, designs and

specifications are prepared for these measures by the Department or by private engineers employed by the local sponsoring organization or the Department.

The Federal government provides all construction funds for structural measures for flood prevention and an equitable share of the cost of installing works of improvement for agricultural water management, fish and wildlife, or recreational development. The latter includes the cost of basic facilities for public health and safety, access to recreational areas, and use of the recreational development. Local organizations must pay all costs of works of improvement for other purposes. In addition, local organizations must acquire water rights and furnish land, easements, and rights-of-way for all structural measures. However, up to one-half the cost of land, easements, and rights-of-way allocated to public fish and wildlife and recreational developments may be paid with PL-534 or PL566 funds.

c. Non-structural measures: Where practical, non-structural measures or a combination of structural and non-structural measures may be installed as part of the watershed works of improvement. Non-structural measures can consist of flood proofing buildings located in a floodplain, zoning or otherwise controlling certain floodplain areas to restrict further development, removal of buildings from the flood area, and other similar measures.

Financial assistance to local sponsoring organizations for installation of non-structural measures is provided in the same manner as for installation of structural measures. The local share for installation of nonstructural measures must be at least 25 percent.

d. Installation of measures: In PL-534 subwatersheds, the Department usually does the contracting. In PL-566 watersheds, local organizations must administer construction contracts, unless they request SCS to do so. In PL-566 watersheds, funds for installation of planned structural measures on non-Federal lands are provided to local organizations under the terms and conditions set forth in project agreements. Federal agencies carry out the watershed construction program on Federal lands which they administer.

Engineering assistance is provided for flood prevention, agricultural water management, and for water resource development or improvement for public fish and wildlife and recreational purposes, either directly by the Federal government or by the local organizations with advances or reimbursement from the Federal government. The Department may also supply up to one-half the cost of engineering assistance required for the installation of basic facilities for public fish and wildlife and recreational development.

Advances may be made to local sponsoring organizations to provide for immediate acquisition of easements and rights-of-way. Also, advances may be made to provide up to 30 percent of the total estimated cost of a proposed impounding structure when such structures are to be used for additional storage of water to meet anticipated future demands for municipal and industrial uses. In each case, advances must be repaid with interest. Advances for preservation of structure sites must be repaid before construction begins.

Local organizations must operate and maintain the completed works of improvement on non-Federal lands.

2. Detailed subwatershed work plans are prepared for PL-534 flood prevention projects in cooperation with soil conservation districts and other local sponsoring organizations. These plans outline soil and water management

problems in subwatersheds, what is proposed to be done to alleviate these problems, the estimated benefits and costs, cost-sharing, and operation and maintenance arrangements.

3. Program evaluation studies are carried out in selected watershed projects to assess effectiveness of structural and land treatment measures installed and assure safe and reasonable design.

4. Loans and loan services are provided to finance the local share of the costs of installing planned works of improvement. Repayment with interest is required within 50 years after the principal benefits of improvements first become available. Loans are financed from the Agricultural Credit Insurance Fund of the Rural Development Administration.

5. Emergency measures: This authority permits installation of emergency measures for immediate protection of life or property from flooding, erosion, or sedimentation damage until long-range practices can become effective. Emergency work includes but is not limited to establishing quick vegetative cover on denuded land, the sloping of steep and eroding banks, opening dangerously restricted channels, repairing diversions and levees, and other emergency work. This work is done to the extent funds are available. Prompt action to alleviate hazardous watershed conditions is essential. Flooding or wind erosion can cause extensive damage to impaired watersheds left unprotected. The Soil Conservation Service administers the program, provides technical and financial assistance, and arranges with local contractors to do the installation work. The Forest Service is responsible for installing measures on the national forest reserve.

## PROGRAM ASSIGNMENTS

The Soil Conservation Service has general responsibility for administration of the Watershed Protection and Flood Prevention Act and the work authorized under the Flood Control Act. This includes responsibility for the installation of land treatment measures and structural works of improvement in authorized watersheds on non-Federal land and on Federal lands by arrangement with the administering agency.

The Forest Service is responsible for installing planned land treatment measures and certain structural works on national forests and other lands administered by the Forest Service in authorized projects. It is also responsible, in cooperation with and through State and local agencies, for the installation of planned forestry measures on forest lands within projects.

The Forest Service does emergency work on national forest reserve lands and on adjacent land which they administer under formal agreement.

The Rural Development Administration has responsibility for administration of Sections 4 and 8 of the Act as they relate to loans and advances to local organizations.

The Economic Research Service makes special economic analyses of watershed or subwatershed projects on a reimbursable basis.

The Agricultural Research Service carries out trap efficiency studies to determine water and sediment outflow from reservoirs for use in designing floodwater retarding structures.

The Department of Interior's Bureau of Land Management and Bureau of Indian Affairs participate in the installation of works of improvement on lands under their jurisdiction.

The following table shows the appropriated funds obligated for PL-534 watershed operations, emergency operations, and PL-566 small watersheds in FY 1993.

| | PL-534 Operations | Emergency Operations | PL-566 Small Watersheds | Total |
|---|---|---|---|---|
| Direct Funds: | | | | |
| Soil Conservation Service..... | $40,223,992 | $77,508,684 | $158,325,418 | $276,058,094 |
| Forest Service..... | 1,952,056 | 2,498,311 | 335,256 | 4,785,623 |
| Rural Develop Admin | 80,000 | 0 | 172,500 | 252,500 |
| Total, Direct..... | $42,256,048 | $80,006,995 | $158,833,174 | $281,096,217 |
| Reimbursable Funds: | | | | |
| Soil Conservation Service..... | $2,116,706 | $2,061,427 | $13,614,329 | $17,792,462 |
| Total Obligations... | $44,372,754 | $82,068,422 | $172,447,503 | $298,888,679 |

Watershed Operations Authorized by PL-534 (Flood Prevention Operations)

Because the authorized flood prevention projects include relatively large areas, work plans are developed on a subwatershed basis. As of September 30, 1993, the total planning job was about 80 percent completed, with 344 work plans completed that include 23,157,573 acres. The following table summarizes the status of subwatershed planning by authorized project:

| Flood Prevention Projects | Total Authorized Area | Subwatershed and other areas with planning potential | | Subwatershed and Other work plans prepared to 9/30/93 | |
|---|---|---|---|---|---|
| | Acres | No. | Acres | No. | Acres |
| Buffalo Creek, NY a/... | 279,680 | 3 | 279,680 | 3 | 279,680 |
| Colorado (Middle), TX.. | 4,613,120 | 18 | 4,613,120 | 17 | 4,613,120 |
| Coosa, GA a/..... | 1,339,400 | 16 | 1,174,650 | 16 | 1,174,650 |
| Little Sioux, IA..... | 1,740,800 | 123 | 1,041,675 | 123 | 1,041,675 |
| Little Tallahatchie, MS | 963,977 | 16 | 656,486 b/ | 16 | 656,486 |
| Los Angeles, CA..... | 536,960 | 10 | 76,434 c/ | 10 | 76,434 |
| Potomac, W. VA & VA.... | 4,205,400 | 36 | 3,247,405 | 18 | 1,423,795 |
| Santa Ynez, CA..... | 576,000 | 5 | 50,743 d/ | 5 | 50,743 |
| Trinity, TX..... | 8,424,260 | 53 | 8,332,603 | 32 | 5,945,570 |
| Washita, TX & OK..... | 5,095,040 | 63 | 5,074,463 | 53 | 4,676,222 |
| Yazoo, MS..... | 7,661,278 | 87 | 3,581,175 | 51 | 3,219,198 |
| TOTAL..... | 35,435,915 | 430 | 28,128,434 | 344 | 23,157,573 |

a/ The Buffalo Creek Watershed was completed and closed in 1964 and reopened in 1992 for repairs. The Coosa Watershed was completed and closed in 1981.
b/ Excludes 96,501 acres of Sardis Reservoir area, and 304,000 acres in minor watersheds needing only land treatment measures.
c/ Includes national forest and other lands, for which the Forest Service has been assigned program responsibility.
d/ Excludes 195,818 acres of reservoir area.

The estimated Federal cost for each watershed and total Federal obligations through FY 1993:

| Flood Prevention Project | Estimated Total Federal Cost | Obligations $ (cumulative) a/ 9/30/92 |
|---|---|---|
| Buffalo Creek Watershed, NY (Complete)..... | $5,653,802 | $5,653,802 |
| Middle Colorado River Watershed, TX..... | 67,543,773 | 61,224,319 |
| Coosa River Watershed, GA and TN (Complete)..... | 18,386,615 | 18,386,615 |
| Little Sioux River Watershed, IA..... | 142,988,919 | 64,955,844 |
| Little Tallahatchie River Watershed, MS. | 170,702,722 | 58,277,202 |
| Los Angeles River Watershed, CA..... | 81,925,270 | 60,197,017 |
| Potomac River Watershed, MD PA, VA, and WV..... | 129,646,193 | 107,493,801 |

| Flood Prevention Project | Estimated Total Federal Cost | Obligations $ (cumulative) a/ 9/30/92 |
|---|---|---|
| Santa Ynez River Watershed, CA..... | 48,627,478 | 39,953,115 |
| Trinity River Watershed, TX..... | 246,894,200 | 180,788,845 |
| Washita River Watershed, OK and TX..... | 191,478,686 | 163,060,883 |
| Yazoo River Watershed, MS..... | 521,461,158 | 223,136,422 |
| TOTAL..... | $1,625,308,816 | $983,127,865 |

a/ Does not include Rural Development Administration obligations of $80,000.

Small Watershed Operations Authorized by PL-566

Watershed plans involving an estimated Federal contribution in excess of $5,000,000 for construction, or construction of any single structure having a capacity in excess of 2,500 acre feet, require Congressional committee approval. Other plans are approved administratively. After approval, technical and financial assistance can be provided for installation of works of improvement specified in the plans.

Project sponsors are provided assistance in installing planned land treatment measures when plans are approved. Surveys and investigations are made and detailed designs, specifications, and engineering cost estimates are prepared for construction of structural measures. Areas where sponsors need to obtain land rights, easements, and rights-of-way are delineated. Technical assistance is also furnished to landowners and operators to accelerate planning and application of needed conservation on their individual units.

The project enters construction when the first project agreement for construction of works of improvement is signed. Under a project agreement, the sponsoring local organization agrees to construct a single or an interrelated group of structures. The government and the sponsoring local organization agree to share the construction costs as specified in the work plan. Engineering and other assistance are provided for preparation of contracts and inspection of construction.

When the local organization does the contracting, payments are made to them as the work progresses in accordance with the terms of the project agreement. When the local organization requests the SCS to do the contracting for works of improvement, the SCS makes payments directly to the contractor as the work progresses. Payments include amounts financed from Federal funds and from local organizations which fund their share of the construction costs.

In FY 1993, 23 projects were approved for operation which brought to 1,557 the total number of projects approved as of September 30, 1993. Of the 1,557 projects in operation in 1993, 185 were installing watershed protection land treatment services and 418 were receiving engineering services or in construction at the end of the year. Projects with construction completed in 1993 brought the total number of projects in post-installation assistance to 789 as of September 30, 1993. One hundred sixty-five of the approved projects did not require Federal funds during the FY 1993 because of project inactivity. A total of 143 have been deauthorized due to the unlikelihood of further project activity.

Obligations Related to PL-566 Watershed Projects

The following tabulation shows by State descriptive information concerning the extent of the program and rate of progress in obligating funds for the installation of works of improvement in PL-566 watersheds. There are 62 multi-State projects. Obligations and staff years are distributed between the States as applicable.

| State | Number Projects Approved 9/30/93 | Total Federal Obligations FY 1993 | FY 1993 Federal Staff-year Input | Total Watershed Area Acres | Total Estimated Cost | Total Federal Estimated Cost | % Federal Cost to Total Cost | Total Cumulative Federal Obligations 9/30/93 | % Federal Cost Obligated as of 9/30/93 |
|---|---|---|---|---|---|---|---|---|---|
| Alabama | 49 | 2,984,581 | 20 | 2,972,362 | 155,819,200 | 106,323,493 | 68.2 | 79,337,611 | 74.6 |
| Arizona | 16 | 2,460,525 | 23 | 1,217,462 | 179,720,328 | 132,441,787 | 73.7 | 110,679,731 | 83.6 |
| Arkansas | 63 | 4,702,949 | 33 | 3,381,394 | 242,238,983 | 181,980,274 | 75.1 | 140,767,883 | 77.4 |
| California | 27 | 7,436,590 | 36 | 1,256,413 | 298,819,177 | 209,138,820 | 70.0 | 175,727,668 | 84.0 |
| Colorado | 22 | 3,253,612 | 12 | 1,380,246 | 54,100,005 | 42,008,253 | 77.6 | 40,870,246 | 97.3 |
| Connecticut | 12 | 1,124,153 | 10 | 214,856 | 101,608,559 | 52,889,317 | 52.1 | 43,289,985 | 81.9 |
| Delaware | 6 | 723,210 | 8 | 411,663 | 29,788,059 | 27,617,726 | 92.7 | 27,617,726 | 100.0 |
| Florida | 30 | 909,474 | 7 | 2,151,268 | 71,280,555 | 43,871,971 | 61.5 | 30,835,984 | 70.3 |
| Georgia | 72 | 3,877,554 | 21 | 4,453,063 | 277,235,392 | 217,573,126 | 78.5 | 93,091,125 | 42.8 |
| Hawaii | 11 | 5,226,776 | 12 | 629,792 | 74,737,368 | 63,360,634 | 84.8 | 46,850,567 | 73.9 |
| Idaho | 20 | 516,439 | 13 | 890,397 | 22,808,935 | 16,970,384 | 74.4 | 16,970,384 | 100.0 |
| Iowa | 53 | 6,139,594 | 37 | 1,251,860 | 156,763,600 | 116,499,671 | 74.3 | 103,877,104 | 89.2 |
| Illinois | 30 | 3,126,355 | 21 | 1,685,550 | 292,537,801 | 185,173,014 | 63.3 | 123,869,858 | 66.9 |
| Indiana | 40 | 629,784 | 12 | 2,445,382 | 127,506,914 | 90,566,117 | 71.0 | 73,362,384 | 81.0 |
| Kansas | 61 | 7,059,598 | 48 | 5,774,346 | 325,634,691 | 223,146,225 | 68.5 | 169,672,750 | 76.0 |
| Kentucky | 42 | 1,967,972 | 24 | 2,572,913 | 116,590,219 | 92,295,795 | 79.2 | 81,307,856 | 88.1 |
| Louisiana | 48 | 3,113,541 | 43 | 5,920,975 | 168,761,909 | 119,342,682 | 70.7 | 114,088,189 | 95.6 |
| Maine | 20 | 809,736 | 12 | 1,095,054 | 31,686,188 | 22,737,628 | 71.8 | 17,285,163 | 76.0 |
| Maryland | 21 | 771,705 | 3 | 521,323 | 35,267,948 | 22,056,375 | 62.5 | 21,432,974 | 97.2 |
| Massachusetts | 12 | 1,068,140 | 10 | 460,232 | 98,869,479 | 41,168,342 | 41.6 | 35,678,284 | 86.7 |
| Michigan | 27 | 1,487,334 | 15 | 1,399,926 | 49,821,979 | 31,276,510 | 62.8 | 26,845,260 | 85.8 |
| Minnesota | 19 | 2,278,519 | 25 | 1,697,719 | 74,570,013 | 53,546,450 | 71.8 | 47,486,035 | 88.7 |
| Mississippi | 59 | 7,266,650 | 46 | 4,589,493 | 355,336,758 | 219,683,591 | 61.8 | 150,811,795 | 68.7 |
| Missouri | 31 | 8,987,807 | 50 | 2,165,491 | 198,747,519 | 164,674,056 | 82.9 | 90,598,284 | 55.0 |
| Montana | 21 | 1,266,834 | 16 | 1,398,621 | 41,741,066 | 30,690,583 | 73.5 | 26,691,649 | 87.0 |
| Nebraska | 52 | 3,102,478 | 23 | 3,494,759 | 138,119,132 | 119,063,309 | 86.2 | 96,591,012 | 81.1 |
| Nevada | 6 | 125,972 | 2 | 402,962 | 8,425,330 | 5,160,270 | 61.2 | 3,091,748 | 59.9 |

| State | Number Projects Approved 9/30/92 | Total Federal Obligations FY 1992 | FY 1992 Federal Staff-year Input | Total Watershed Area Acres | Total Estimated Cost | Total Federal Estimated Cost | % Federal Cost to Total Cost | Total Cumulative Federal Obligations 9/30/93 | % Federal Cost Obligated as of 9/30/93 |
|---|---|---|---|---|---|---|---|---|---|
| New Hampshire | 7 | 427,069 | 7 | 456,770 | 27,670,347 | 22,054,819 | 79.7 | 22,054,819 | 100.0 |
| New Jersey | 15 | 712,550 | 13 | 389,347 | 82,957,963 | 43,122,616 | 52.0 | 41,069,494 | 95.2 |
| New Mexico | 28 | 13,768,917 | 25 | 1,681,677 | 201,510,111 | 165,382,959 | 82.1 | 114,665,700 | 69.3 |
| New York | 23 | 779,967 | 16 | 965,538 | 83,594,366 | 72,943,145 | 87.3 | 58,908,269 | 80.8 |
| North Carolina | 59 | 3,698,813 | 29 | 2,744,684 | 157,487,330 | 95,978,892 | 60.9 | 85,987,953 | 89.6 |
| North Dakota | 19 | 560,035 | 8 | 2,378,471 | 54,170,663 | 40,419,210 | 74.6 | 35,473,646 | 87.8 |
| Ohio | 26 | 3,953,996 | 23 | 2,449,256 | 111,483,763 | 99,578,628 | 89.3 | 96,633,217 | 97.0 |
| Oklahoma | 76 | 5,884,810 | 69 | 7,350,057 | 470,622,340 | 341,196,148 | 72.5 | 242,720,218 | 61.1 |
| Oregon | 22 | 1,651,029 | 13 | 1,199,556 | 116,973,497 | 75,310,330 | 64.4 | 37,313,486 | 49.5 |
| Pacific Basin | 1 | 598,287 | 3 | 150 | 755,287 | 702,987 | 93.1 | 598,287 | 85.1 |
| Pennsylvania | 31 | 1,384,492 | 29 | 1,499,287 | 154,433,463 | 112,496,718 | 72.8 | 96,147,548 | 85.5 |
| Puerto Rico | 4 | 677,891 | 8 | 266,002 | 115,367,544 | 56,542,544 | 49.0 | 10,975,403 | 19.4 |
| Rhode Island | 1 | 115,054 | 2 | 24,100 | 735,944 | 665,100 | 90.4 | 665,100 | 100.0 |
| South Carolina | 57 | 987,984 | 16 | 3,643,298 | 86,024,542 | 63,171,614 | 73.4 | 53,704,435 | 85.0 |
| South Dakota | 15 | 127,085 | 2 | 758,801 | 21,564,571 | 15,328,422 | 71.1 | 11,536,974 | 75.3 |
| Tennessee | 46 | 3,537,663 | 30 | 2,261,732 | 169,779,179 | 146,331,907 | 86.2 | 98,784,086 | 67.5 |
| Texas | 97 | 10,834,807 | 72 | 10,135,744 | 515,533,034 | 438,297,492 | 85.0 | 355,271,236 | 81.1 |
| Utah | 14 | 808,443 | 14 | 1,334,287 | 50,204,812 | 38,449,866 | 76.6 | 36,234,021 | 94.2 |
| Vermont | 12 | 1,007,577 | 12 | 983,927 | 30,770,571 | 20,198,396 | 65.6 | 16,899,997 | 83.7 |
| Virginia | 41 | 2,879,266 | 24 | 2,291,839 | 117,637,475 | 97,422,386 | 82.8 | 68,597,771 | 70.4 |
| Washington | 20 | 1,427,175 | 23 | 652,296 | 120,416,204 | 74,337,930 | 61.7 | 47,190,150 | 63.5 |
| West Virginia | 32 | 14,924,912 | 44 | 1,250,636 | 252,505,911 | 210,409,701 | 83.3 | 156,464,205 | 74.4 |
| Wisconsin | 28 | 4,353,538 | 15 | 1,468,999 | 62,208,432 | 53,042,063 | 85.3 | 47,169,374 | 88.9 |
| Wyoming | 13 | 806,250 | 6 | 615,236 | 15,557,213 | 10,531,961 | 67.7 | 9,754,707 | 92.6 |
| Total | 1,557 | 158,325,495 | 1,085[a]/ | 102,637,212 | 6,748,501,669 | 4,925,172,237 | 73.0 | 3,733,579,354 | 75.8 |

a/ Soil Conservation Service staff-years only. There are an additional 5 Rural Development Administration staff-years and an additional 1 Forest Service staff-year funded by this activity for a total of 1,056 staff-years.

## Multiple Purpose Projects

On October 1, 1993, 731 multipurpose projects had been approved for operation under the Public Law 566 program. This represents 47 percent of the 1551 projects which were operational and indicates that the program continues to provide solutions to a broad range of local problems.

Agricultural Water Management. Three hundred ninety-one watershed projects include structural measures for agricultural water management in addition to flood prevention features. Of these, 302 include drainage improvements on existing cropland and 89 include irrigation.

Recreation. Two hundred seventy-five small watershed projects approved as of September 30, 1993 include developments to create or improve facilities for the enjoyment of outdoor recreation in addition to flood prevention and watershed protection. Local sponsoring organizations are responsible for operating and maintaining the reservoirs and recreation areas.

Municipal Water. As of September 30, 1993, local sponsors of 169 watershed projects had included municipal water supply features in their watershed plans in addition to flood prevention and watershed protection.

## Acceleration of Soil Surveys and Conservation Planning in Watershed and Flood Prevention Projects

Watershed and Flood Prevention Operations funds are used to accelerate soil surveys, conservation planning, and installation of conservation land treatment measures in PL-534 subwatersheds and PL-566 watershed projects as specified in project plans. This acceleration of technical assistance is provided to help meet project objectives within the agreed upon installation period.

In FY 1993, 12[illegible]8 acres of conservation and ranch plans were prepared with Watershed and Flood Prevention Operations funds.

## Loan Programs

Under Public Law 83-566, as amended and Public Law 78-534, loans are made to local organizations for financing the local share of the cost of installing, repairing, or improving works of improvements and water storage facilities, purchasing sites or rights-of-way and for related costs in approved watershed works of improvement and flood prevention projects. The Rural Development Administration has been assigned responsibility for making these loans to sponsors of such projects approved for operations. No loan may be made until the Soil Conservation Service and the local organization have agreed on a plan for works of improvement. Public Law 92-419, approved August 30, 1972, provided for making such loans on an insured basis under the Agricultural Credit Insurance Fund.

These loans are repayable in not more than 50 years at an interest rate based on the average rate paid by the U.S. Treasury on obligations of similar maturity. The rate in FY 1993 was 9.503 percent. For a single plan for works of improvement, the amount of the loan may not exceed $10 million.

Applications for loans received by the Rural Development Administration have varied greatly in amount. Most applications have included requests for funds to purchase easements or rights-of-way and pay legal fees and organization costs. The larger loan requests have also included funds to pay the local organization's share of the installation costs of drainage channels, municipal water storage, irrigation works, recreational facilities, natural beauty, and other multiple-purpose improvements. In FY 1993 no loans were obligated. There are currently 184 borrowers outstanding at a value of $53.7 million. Over the life of the program, 495 loans have been made at a value of almost $176 million.

| Item | 1993 Actual No. | 1993 Actual $ (000) | 1994 Estimated No. | 1994 Estimated $ (000) | 1995 Estimated No. | 1995 Estimated $ (000) |
|---|---|---|---|---|---|---|
| 1. Loans obligated during year | 0 | 0 | 8 | 4,000 | 8 | 4,000 |
| 2. Borrowers outstanding | 184 | 53,729 | 184 | 53,729 | 184 | 53,729 |
| 3. Loans cumulative | 495 | 175,903 | 495 | 175,903 | 495 | 175,903 |

Improvements Installed in Watershed and Flood Prevention Projects

The following table contains a listing of the technical services provided, lands improved and erosion reduced, and land treatment measures installed within project areas by the Soil Conservation Service with funds from the Watershed and Flood Prevention Operations Program in 1993. The Forest Service also uses these funds on National forest lands to stabilize critical areas, roads and roadbanks; to reduce fire hazards and improve fire control; to plant and seed trees and grass; for range and waste land grazing; for wildlife habitat; for recreation; and also for vegetating surface mined areas and/or water management:

| Agency | Units | Programs: Small Watersheds PL-566 | Programs: Flood Prevention PL-534 | Total |
|---|---|---|---|---|
| SOIL CONSERVATION SERVICE | | | | |
| Technical Services: | | | | |
| Individuals and groups provided one or more technical services | Number | 7,754 | 7,580 | 15,334 |
| State, local or other Federal units of government provided one or more technical services | Number | 64 | 57 | 121 |
| Individuals and groups of individuals who installed one or more land treatment measures to lands under their control | Number | 3,951 | 3,914 | 7,865 |
| Conservation planning achieved with land users receiving technical services | Acres | 97,457 | 29,561 | 127,018 |
| Lands Improved: | | | | |
| Estimated land improved and tons of reduced erosion on lands within watershed project areas: | | | | |
| Cropland | Acres | 222,672 | 193,170 | 415,842 |
| | Tons | 1,456,747 | 2,520,816 | 3,977,563 |
| Pasture and Hayland | Acres | 43,192 | 158,286 | 201,478 |
| | Tons | 252,387 | 578,367 | 830,754 |
| Range and Nature Pasture | Acres | 95,414 | 243,383 | 338,797 |
| | Tons | 317,919 | 536,219 | 854,138 |
| Woodland | Acres | 7,627 | 7,081 | 14,708 |
| | Tons | 57,054 | 11,776 | 68,830 |
| All Other | Acres | 20,215 | 41,077 | 61,292 |
| | Tons | 124,088 | 173,746 | 297,834 |
| Total | Acres | 389,120 | 642,997 | 1,032,117 |
| | Tons | 2,208,195 | 3,820,924 | 6,029,119 |

## SOIL CONSERVATION SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Great Plains Conservation Program

For necessary expenses to carry into effect a program of conservation in the Great Plains area, pursuant to section 16(b) of the Soil Conservation and Domestic Allotment Act, as added by the Act of August 7, 1956, as amended (16 U.S.C. 590p(b)), [$25,658,000] $10,937,000, to remain available until expended (16 U.S.C. 590p(b)(7)).

## Great Plains Conservation Program

| | |
|---|---|
| Appropriation Act, 1994 | $25,658,000 |
| Budget Estimate, 1995 | 10,937,000 |
| Decrease in Appropriation | -$14,721,000 |

### SUMMARY OF INCREASES AND DECREASES
(on basis of appropriation)

| Item of Change | 1994 Estimated | Pay Cost | Program Changes | 1995 Estimated |
|---|---|---|---|---|
| Great Plains Conservation Program: | | | | |
| 1. Cost-sharing assistance | $16,365,000 | -- | -$14,320,000 | $2,045,000 |
| 2. Cost-share program and contract administration | 2,974,000 | +$32,000 | -161,000 | 2,845,000 |
| 3. Technical assistance | 6,319,000 | +68,000 | -340,000 | 6,047,000 |
| TOTAL AVAILABLE | $25,658,000 | +$100,000 | -$14,821,000 | $10,937,000 |

### PROJECT STATEMENT
(On basis of appropriation)

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Great Plains Conservation Program: | | | | | | | |
| 1. Cost-sharing assistance | $16,365,000 | -- | $16,365,000 | -- | -$14,320,000 | $2,045,000 | -- |
| 2. Cost-share program and contract administration | 2,850,000 | 55 | 2,974,000 | 54 | -129,000 | 2,845,000 | 51 |
| 3. Technical assistance | 6,056,000 | 116 | 6,319,000 | 115 | -272,000 | 6,047,000 | 107 |
| Total Appropriation | $25,271,000 | 171 | $25,658,000 | 169 | -$14,721,000 | $10,937,000 | 158 |

### PROJECT STATEMENT
(On basis of available funds)

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Direct obligations: | | | | | | | |
| Great Plains Conservation Program: | | | | | | | |
| 1. Cost-sharing assistance | $16,399,108 | -- | $16,593,430 | -- | -$14,548,430 | $2,045,000 | -- |
| 2. Cost-share program and contract administration | 2,882,230 | 55 | 2,974,000 | 54 | -129,000 | 2,845,000 | 51 |
| 3. Technical assistance | 6,124,738 | 116 | 6,319,000 | 115 | -272,000 | 6,047,000 | 107 |
| Total direct oblig. | 25,406,076 | 171 | 25,886,430 | 169 | -14,949,430 | 10,937,000 | 158 |
| Unobligated balance brought forward | (-363,506) | (--) | (-228,430) | (--) | (+228,430) | (--) | (--) |
| Unobligated balance carried forward | (+228,430) | (--) | (--) | (--) | (--) | (--) | (--) |
| Adjusted appropriation | (25,271,000) | (171) | (25,658,000) | (169) | (+228,430) | (10,937,000) | (158) |
| Reimbursat oblig. | 11,796 | -- | 20,000 | -- | -- | 20,000 | -- |
| Obligation authority | $25,417,872 | 171 | $25,906,430 | 169 | -$14,949,430 | $10,957,000 | 158 |

SOURCES OF REIMBURSEMENTS

| Project | 1993 Actual | 1994 estimated | Increase or Decrease | 1995 estimated |
|---|---|---|---|---|
| Federal Sources | 1,866 | $16,000 | -- | $16,000 |
| Other Non-Federal Sources | 9,930 | 4,000 | -- | 4,000 |
| Total reimbursements | $11,796 | $20,000 | -- | $20,000 |

OUTLAYS

| Project | 1993 Actual | 1994 estimated | Increase or Decrease | 1995 estimated |
|---|---|---|---|---|
| Great Plains Conservation Program: | | | | |
| 1. Cost-sharing assistance | $13,604,431 | $17,207,000 | -$5,570,000 | $11,637,000 |
| 2. Cost-share program and contract administration | 3,149,403 | 2,926,000 | -70,000 | 2,856,000 |
| 3. Technical assistance | 6,692,481 | 6,217,000 | -149,000 | 6,068,000 |
| Total Outlays | $23,446,315 | $26,350,000 | -$5,789,000 | $20,561,000 |

EXPLANATION OF PROGRAM

Authorization: The appropriation for "Great Plains Conservation Program" funds Soil Conservation Service activities authorized under Section 16(b) of the Soil Conservation and Domestic Allotment Act (PL 74-46) as amended by PL 84-1021. PL 101-624 amended PL 84-1021 to extend the Great Plains cost-share contracting authority to September 30, 2001.

Authorization limits: Total cumulative appropriations of $1,000,000,000 are authorized for cost-sharing. Cost-sharing payment in any one fiscal year may not exceed $50,000,000. Through September 30, 1993, $397,863,803 have been paid out in cost-shares.

This program is in addition to other USDA soil and water conservation programs in the counties designated for participation, and is coordinated with programs and objectives of locally managed conservation districts, State agencies, and community groups.

| Potential Workload: | Acres (in 000's) |
|---|---|
| Estimated acreage in the 556 designated counties that could come under Great Plains contracts | 210,000 |
| **Current Activity:** | |
| Land under active contracts as of September 30, 1993 | 19,884 |

The purpose of the program is to assist farmers and ranchers in planning and applying resource management systems on their farms and ranches to prevent or reduce the effects of the climatic hazards of the area. Benefits to be achieved are protection and improvement of soil, water, plant, and wildlife resources through reduction of erosion and sedimentation, and abatement of agriculture-related pollution. A secondary benefit of the program is its impact on stabilizing the local economy. Activities include:

-- Cost-sharing assistance - Payments are made to program participants for a share of the cost of installing eligible conservation practices scheduled in contracts, including, among others, terraces, permanent vegetative cover, re-establishing grasslands and pipelines.

-- Cost-share programming and contract administration - Soil Conservation Service provides assistance in developing contracts, which include schedules of conservation practices to be applied, and administers contracts.

-- Technical assistance - Soil Conservation Service provides assistance to help farmers and ranchers plan, install, and maintain scheduled conservation practices according to standards and specifications.

| PROGRAM RESULTS | | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate |
|---|---|---|---|---|
| Active Contracts - beginning of year..... | | 6,336 | 6,761 | 7,151 |
| New Contracts signed.....Annual | | 1,129 | 1,150 | 100 |
| | Cumulative | 70,608 | 71,758 | 71,858 |
| Contracts Completed and Terminated.....Annual | | -760 | -760 | -760 |
| | Cumulative | 63,749 | 64,509 | 65,269 |
| Active Contracts - end of year..... | | 6,761 | 7,151 | 6,491 |
| Active applications on hand beginning of year | | 2,700 | 2,599 | 2,700 |
| Active applications on hand end of year..... | | 2,599 | 2,700 | 3,000 |
| Number of participants serviced.....Annual | | 7,465 | 7,911 | 7,251 |
| Acres in new contracts (1,000).....Annual | | 2,827 | 2,800 | 250 |
| Acres treated (1,000) .....Cumulative | | 153,940 | 156,740 | 156,990 |

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A decrease of $14,721,000 for the Great Plains Conservation Program consisting of:

(a) An increase of $100,000 for the Great Plains Conservation Program for a 1.6 percent general pay raise anticipated for fiscal year 1995.

(b) An increase of $512,000 for an anticipated 2.6 percent increase in nonpay support costs associated with program operations in fiscal year 1995.

(c) A decrease of $279,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, SCS is reducing employment in this program from the FY 1993 base by 2.9 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(d) A decrease of $54,000 for administrative efficiency.

Need for Change. In support of the Secretary's streamlining efforts and the President's Executive Order to reduce overhead-type outlays from the FY 1993 baseline, budget authority is reduced by $54,000.

Nature of Change. In order to achieve these savings, SCS will reduce discretionary expenses in this program by $54,000 in FY 1995, in areas such as travel, transportation of things, rent and communications, miscellaneous services, and supplies. There would be no significant impact on program operations as long as the agency is funded for the uncontrollable FY 1995 increased pay and inflationary costs.

(e) A program decrease of $15,000,000.

Need for Change. This decrease is part of a reduction to meet overall USDA budget and spending targets.

Nature of Change. Cost-sharing assistance available for new contracting will be reduced to about 12 percent of the 1994 program level. An estimated 100 new contracts focussing on water quality concerns would be signed. Technical assistance will continue to complete the installation of conservation practices included under active GPCP contracts signed in prior years. There is a loss of 6 staff years associated with this reduction.

SOIL CONSERVATION SERVICE
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995
GREAT PLAINS CONSERVATION PROGRAM

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS |
| COLORADO..... | $2,076,828 | 14 | $2,131,673 | 14 | $880,000 | 13 |
| KANSAS..... | 2,503,958 | 18 | 2,561,384 | 18 | 1,078,000 | 17 |
| MONTANA..... | 2,259,566 | 14 | 2,271,573 | 13 | 867,000 | 12 |
| NEBRASKA..... | 2,392,999 | 16 | 2,455,078 | 16 | 1,000,000 | 15 |
| NEW MEXICO..... | 1,361,000 | 7 | 1,396,239 | 6 | 542,000 | 6 |
| NORTH DAKOTA..... | 2,008,004 | 13 | 1,888,474 | 13 | 800,000 | 12 |
| OKLAHOMA..... | 1,921,275 | 12 | 1,986,193 | 12 | 768,000 | 11 |
| SOUTH DAKOTA..... | 2,284,927 | 17 | 2,348,010 | 17 | 1,034,000 | 16 |
| TEXAS..... | 6,220,011 | 39 | 6,287,584 | 39 | 2,539,000 | 37 |
| WYOMING..... | 1,556,263 | 10 | 1,785,629 | 10 | 688,000 | 9 |
| FORT WORTH NTC... | 102,246 | 3 | 95,237 | 3 | 91,000 | 2 |
| LINCOLN NTC..... | 66,000 | 1 | 26,455 | 1 | 25,000 | 1 |
| PORTLAND NTC..... | 55,786 | 2 | 56,084 | 2 | 54,000 | 2 |
| NATIONAL HDQTRS.. | 597,213 | 5 | 596,817 | 5 | 571,000 | 5 |
| Total available or estimate..... | $25,406,076 | 171 | $25,886,430 | 169 | $10,937,000 | 158 |

# GREAT PLAINS CONSERVATION PROGRAM

## STATUS OF PROGRAM

CURRENT ACTIVITIES: The Great Plains Conservation Program, authorized by Public Law 96-263, provides assistance, under long-term contracts, to land users in 556 designated counties of the 10 Great Plains States. It is designed to provide needed protection and improvement of soil, water, plant, and wildlife resources of the unique Plains area, which is plagued with recurring drought, and severe erosion from wind and water. Selection of suitable land uses and installation of complete conservation treatment and management systems on farms and ranches in the area are made through reduction of wind and water erosion, abatement of agriculture related pollution and water conservation measures.

## PROGRAM ASSIGNMENTS

The Soil Conservation Service has responsibility for administration of the Great Plains Conservation Program. State and county program committees participate in program development and coordination of activities. The Agricultural Stabilization and Conservation Service (ASCS) certifies that cost-share payments are not duplicates of payments made under programs administered by ASCS and searches the claim control record to determine whether amounts due to the Federal Government should be set off against cost-share payments and that participants are not in violation of FACT Act highly erodible land and wetland conservation provisions.

## PROGRAM, ADMINISTRATIVE, AND TECHNICAL ASSISTANCE

Technical services of soil and range conservationists, engineers, agronomists and other agricultural specialists are provided to help install sound conservation programs adapted to each farm or ranch. These services include:

(a) Cost-share program and contract administration. This includes: overall program direction and administration; technical assistance for processing applications for program participation; development of average costs; determining cost-share obligations; preparing contracts; and contract administration to ensure that contract provisions are met. Contracts are based on conservation plans of operations which outline resource management systems by land use.

(b) Technical assistance to help install planned conservation practices. Farmers and ranchers contract to complete their plan of conservation operations as scheduled. Assistance in practice installation is provided when needed for site selection, topographic surveys, detailed designs, practice layout, and completion. Technical assistance is also furnished to help cooperators perform required noncost-shared management features such as planned grazing systems, irrigation water management, and crop residue management on cultivated land.

SCS installation services are committed for contracted practices during the duration of the contract which runs from 3 to 10 years. Technical assistance is made available to help install practices scheduled for installation by local staffs at each field office. In 1993, 114 staff-years were used for technical services.

## COST-SHARING ASSISTANCE

Cost-share payments normally vary from 25 to 80 percent of the costs incurred by program participants for installation of eligible conservation practices. The average federal cost for applying conservation work in a contract is 38 percent. Financial assistance enables cooperators to install conservation practices in the proper sequence as scheduled in long term contracts. Determination of a county's eligibility for participation in the program is based on conservation needs and interests of local people. The physical factors for consideration include susceptibility of the land to serious soil erosion, and the need for changes in land use, cropping systems, and grassland management. The responsibility for determining local interest in the program rests with the State Conservationist. At the end of

FY 1993, the following characterizes program participation and shows number and acres of active contracts by State:

| State | Designated Counties | Active Contracts 9/30/93 Number | Acres | FY 93 Actual Cost-sharing Payments | Total Direct Obligations | Staff Yrs. |
|---|---|---|---|---|---|---|
| Colorado..... | 38 | 577 | 1,501,000 | $1,406,252 | $2,076,828 | 14 |
| Kansas..... | 62 | 1,192 | 641,568 | 728,073 | 2,503,958 | 18 |
| Montana..... | 46 | 419 | 2,592,072 | 1,392,750 | 2,259,566 | 14 |
| Nebraska..... | 65 | 667 | 1,478,042 | 1,345,582 | 2,392,999 | 16 |
| New Mexico..... | 27 | 213 | 3,210,775 | 574,666 | 1,361,000 | 7 |
| North Dakota.... | 48 | 635 | 1,303,818 | 1,228,004 | 2,008,004 | 13 |
| Oklahoma..... | 44 | 738 | 507,485 | 966,070 | 1,921,275 | 12 |
| South Dakota.... | 51 | 623 | 2,377,284 | 1,055,925 | 2,284,927 | 17 |
| Texas..... | 156 | 1,395 | 3,592,363 | 4,009,503 | 6,220,011 | 39 |
| Wyoming..... | 19 | 302 | 2,679,795 | 897,606 | 1,556,263 | 10 |
| National Technical Centers... 1/ | - - | - - | - - | - - | 224,032 | 6 |
| National Hdqtrs. | - - | - - | - - | - - | 597,213 | 5 |
| Total GPCP..... | 556 | 6,761 | 19,884,202 | $13,604,431 | $25,406,076 | 171 |

1/ Includes management, program, and technical guidance provided through National Technical Centers as follows:

| | |
|---|---|
| Lincoln, Nebraska.... | $66,000 |
| Fort Worth, Texas.... | 102,246 |
| Portland, Oregon..... | 55,786 |

Farms and ranches under contract at the end of FY 1993 average 2,941 acres in size and obligate a total of $45,302,393 in cost-share. A total of 153,939,953 acres have been included in cost-share contracts since the program began.

## CONSERVATION ACCOMPLISHMENTS

The following information identifies how the 1993 cost share funds were obligated by land use and by problem level within each land use. The land in the severe problem category is expected to be in the moderate or slight problem category at the end of the contract.

| LAND USE | | SEVERE | MODERATE | SLIGHT | TOTAL |
|---|---|---|---|---|---|
| Rangeland..... | Acres | 613,105 | 1,091,265 | 312,317 | 2,016,687 |
| | Obligations | $3,444,067 | $3,724,377 | $432,632 | $7,601,076 |
| Non-irrigated Pastureland.... | Acres | 17,766 | 54,731 | 45,365 | 117,862 |
| | Obligations | $791,614 | $782,466 | $146,662 | $1,720,742 |
| Irrigated Cropland & Pastureland.... | Acres | 21,814 | 38,073 | 58,570 | 118,457 |
| | Obligations | $581,328 | $723,543 | $189,032 | $1,493,903 |
| Non-irrigated Cropland..... | Acres | 114,055 | 76,173 | 122,723 | 312,951 |
| | Obligations | $2,887,946 | $783,784 | $235,911 | $3,907,641 |
| Convert cropland to grassland.... | Acres | 16,170 | 13,573 | 5,646 | 35,389 |
| | Obligations | $696,962 | $432,957 | $75,889 | $1,205,808 |
| Other..... | Acres | 8,807 | 7,893 | 55,690 | 72,390 |
| | Obligations | $243,289 | $183,322 | $57,963 | $484,574 |
| TOTAL..... | Acres | 791,717 | 1,281,708 | 600,311 | 2,673,736 |
| | Obligations | $8,645,206 | $6,630,449 | $1,138,089 | $16,413,744 |

Problem categories are defined as follows:

Slight Problem - The operating unit has very few or minor conservation treatment needs and can be adequately protected from resource degradation by appropriate management measures and techniques. Land already treated would fall in this category and would have to be included in the contract even if only maintenance would be needed.

Moderate Problem - The operating unit has fragile features and is susceptible to degradation from climatic and other hazards. It is in need of conservation treatment. Productive use of the unit can be accomplished and maintained through a combination of management and enduring (usually cost-shared) treatment measures.

Severe Problem - The operating unit has high susceptibility to degradation and deterioration and has high need for conservation treatment. Although productive use of the resource may or may not be advisable, it can be adequately protected through extensive management of the fragile resource combined with enduring conservation treatment measures.

## WIND EROSION CONDITIONS IN THE GREAT PLAINS
## For the 1992-1993 Wind Erosion Season

Wind erosion reports submitted from 541 counties in which wind erosion was prevalent during the 1992-1993 season, showed that total land damage this year is 2.9 million acres and is 5.7 million acres (47 percent) below the 35 year average.

The Northern Plains reported 1.5 million acres damaged, a 27 percent decrease from last year.

The 541 counties reported 2,984,300 acres damaged through the end of May. Of the total land reported damaged 88 percent (2,643,500 acres) was cropland.

Crops or cover were destroyed on 154,400 acres of land.

Land reported in condition to blow was 12,509,000 acres, 22 percent below last year and 14 percent above the average of 10,963,000 acres.

## SOIL CONSERVATION SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Resource Conservation and Development

For necessary expenses in planning and carrying out projects for resource conservation and development and for sound land use pursuant to the provisions of section 32(e) of title III of the Bankhead-Jones Farm Tenant Act, as amended (7 U.S.C. 1010-1011; 76 Stat. 607), and the provisions of the Act of April 27, 1935 (16 U.S.C. 590a-f), and the provisions of the Agriculture and Food Act of 1981 (16 U.S.C. 3451-3461), [$32,945,000] $26,157,000: Provided, That $600,000 in loans may be insured, or made to be sold and insured, under the Agricultural Credit Insurance Fund of the Farmers Home Administration (7 U.S.C. 1931): Provided further, That this appropriation shall be available for employment pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C 2225), and not to exceed $50,000 shall be available for employment under 5 U.S.C. 3109.

## Resource Conservation and Development

| | |
|---|---|
| Appropriation Act, 1994 | $32,945,000 |
| Budget Request, 1995 | 26,157,000 |
| Increase in Appropriation | -$ 6,788,000 |

### SUMMARY OF INCREASES AND DECREASES
(on basis of appropriation)

| Item of Change | 1994 Estimated | Pay Costs | Other Changes | 1995 Estimated |
|---|---|---|---|---|
| Resource Conservation and Development: | | | | |
| 1. Technical assistance | $28,343,000 | +$291,000 | -$ 2,532,000 | $26,102,000 |
| 2. Financial assistance | 4,542,000 | -- | - 4,542,000 | -- |
| 3. Loan services | 60,000 | -- | - 5,000 | 55,000 |
| TOTAL AVAILABLE | $32,945,000 | +$291,000 | -$ 7,079,000 | $26,157,000 |

### PROJECT STATEMENT
(On basis of appropriation)

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Resource Conservation and Development: | | | | | | | |
| 1. Technical assistance | $29,949,000 | 523 | $28,343,000 | 475 | -$2,241,000 | $26,102,000 | 405 |
| 2. Financial assistance | 2,507,000 | -- | 4,542,000 | -- | - 4,542,000 | -- | -- |
| 3. Loan services | 60,000 | 2 | 60,000 | 2 | -5,000 | 55,000 | 2 |
| Total available | $32,516,000 | 525 | $32,945,000 | 477 | -$6,788,000 | $26,157,000 | 407 |

### PROJECT STATEMENT
(On basis of available funds)

| Project | 1993 Amount | 1993 Staff Years | 1994 estimated Amount | 1994 estimated Staff Years | Increase or Decrease | 1995 estimated Amount | 1995 estimated Staff Years |
|---|---|---|---|---|---|---|---|
| Resource Conservation and Development: | | | | | | | |
| 1. Technical assistance | $30,735,181 | 523 | $29,555,000 | 475 | -$3,453,000 | $26,102,000 | 405 |
| 2. Financial assistance | 2,048,298 | -- | 5,627,802 | -- | -5,627,802 | -- | -- |
| 3. Loan services | 60,000 | 2 | 60,000 | 2 | -5,000 | 55,000 | 2 |
| Total direct oblig. | $32,843,479 | 525 | $35,242,802 | 477 | -$9,085,802 | $26,157,000 | 407 |
| Unobligated balance brought forward | (-2,625,281) | (--) | (-2,297,802) | (--) | (+2,297,802) | (--) | (--) |
| Unobligated balance carried forward | (+2,297,802) | (--) | (--) | (--) | (--) | (--) | (--) |
| Appropriation total | (32,516,000) | (525) | (32,945,000) | (477) | (-6,788,000) | (26,157,000) | (407) |
| Reimbursable obligations: | | | | | | | |
| Resource Conservation and Development: | | | | | | | |
| (a) Technical assistance | 334,083 | 5 | 368,000 | 6 | + 32,000 | 400,000 | 6 |
| (b) Financial assistance | 352,694 | -- | 632,000 | -- | - 632,000 | -- | -- |
| Total reimbursable obligations | 686,777 | 5 | 1,000,000 | 6 | - 600,000 | 400,000 | 6 |
| Obligational authority | $33,530,256 | 530 | $36,242,802 | 483 | -$9,685,802 | $26,557,000 | 413 |

SOURCES OF REIMBURSEMENTS

| Project | 1993 Actual | 1994 Estimated | Increase or Decrease | 1995 Estimated |
|---|---|---|---|---|
| Federal Sources..... | $298,895 | $ 200,000 | -- | $200,000 |
| Non-Federal Sources.... | 387,882 | 800,000 | -- | 200,000 |
| Total Reimbursements... | $686,777 | $1,000,000 | -- | $400,000 |

OUTLAYS

| Project | 1993 Actual | 1994 Estimated | Increase or Decrease | 1995 Estimated |
|---|---|---|---|---|
| Resource Conservation and Development: | | | | |
| (a) Technical assistance..... | $30,251,374 | $25,475,000 | -$996,000 | $24,479,000 |
| (b) Financial assistance..... | 5,008,000 | 6,491,000 | -3,226,000 | 3,265,000 |
| (c) Loan services.... | 60,000 | 60,000 | -5,000 | 55,000 |
| Total Outlays..... | $35,319,374 | $32,026,000 | -$4,227,000 | $27,799,000 |

EXPLANATION OF PROGRAM

The appropriation "Resource Conservation and Development" funds the activities authorized under Section 32(e) of Title III of the Bankhead-Jones Farm Tenant Act (Public Law 75-210), as amended and the Soil Conservation and Domestic Allotment Act of April 27, 1935, (Public Law 74-46), as amended and the provisions of the Agriculture and Food Act of 1981 (16 U.S.C. 3451-3461). Program assistance provided in authorized RC&D areas includes technical assistance for planning and implementation, financial assistance, and loan services.

Technical Assistance: Staff assistance is provided to local sponsors in the preparation of RC&D area plans for the conservation, development, and utilization of the natural resources in the RC&D area. Staff assistance is also provided to local sponsors in the implementation of their RC&D plans. This includes:

a. Assistance with inventories and studies of measures of areawide scale that directly aid sponsors in achieving their RC&D objectives.

b. Assistance in developing plans, designs, layout, and installation of measures eligible for RC&D financial assistance.

c. Assistance to sponsors to achieve activities and measures contained in the RC&D plans which are ineligible for RC&D financial assistance.

Financial Assistance: Financial assistance is provided to eligible sponsors to install approved measures. Priority is given to measures related to erosion and sediment control (critical area treatment), flood prevention and farm irrigation, and efficiency in water short areas. Other purposes include soil and water management for control of agriculture-related pollutants, public water-based recreation developments, and public water-based fish and wildlife developments.

MAIN WORKLOAD FACTORS

| | | 1993 Actual | 1994 Estimate | 1995 Estimate |
|---|---|---|---|---|
| Status of Authorized RC&D Areas: | | | | |
| Areas authorized start of year..... | | 236 | 250 | 260 |
| Areas Deauthorized in year..... | | -- | -- | -- |
| New areas authorized in year..... | | 14 | 10 | -- |
| Areas authorized end of year..... | | 250 | 260 | 260 |
| Applications on hand..... | | (62) | (80) | (100) |
| RC&D Project Activity: | | | | |
| Project Plans: | | | | |
| Adopted | During year.. | 2,382 | 2,500 | 2,650 |
| | Cumulative... | 40,708 | 43,208 | 45,858 |
| Written | During year.. | 1,765 | 1,800 | 1,500 |
| | Cumulative... | 31,104 | 32,904 | 34,404 |
| Projects Underway: | | | | |
| In Construction | During year.. | 1,900 | 1,900 | 1,200 |
| Completed | During year.. | 1,691 | 1,720 | 1,100 |
| | Cumulative... | 27,482 | 29,202 | 30,302 |
| Input of Resources to Projects($ in 1,000's): (Resources provided for accomplishing completed projects. Includes direct technical and financial assistance attributable to a project.) | | | | |
| RC&D resources | During year.. | $ 8,011 | $ 8,331 | $ 4,100 |
| Other federal | During year.. | $36,236 | $37,000 | $18,200 |
| State government | During year.. | $26,331 | $27,400 | $13,500 |
| Local government | During year.. | $14,354 | $14,000 | $ 7,300 |
| Non-government | During year.. | $34,417 | $36,000 | $17,700 |
| Ratio of RC&D funds to other funding: | During year.. | 1:14 | 1:14 | 1:14 |

Loan Services Assistance: Funds are provided to the Farmer's Home Administration (FmHA) to service loans made to sponsors from the Agricultural Credit Insurance Fund. Loan services must be provided from Resource Conservation and Development funds because the Agricultural Credit Insurance Fund of the RDA is not available for such expenses. The workload in FY 1993 consisted of providing loan counseling to help local sponsors arrange funding necessary to implement planned financial assistance measures.

| | 1993 Actual | | 1994 Estimated | | 1995 Estimated | |
|---|---|---|---|---|---|---|
| Item | No. | Amount | No. | Amount | No. | Amount |
| 1. Loans obligated during year..... | 0 | 0 | 0 | 0 | 0 | 0 |
| 2. Borrowers outstanding | 105 | $ 7,423,000 | 105 | $ 7,423,000 | 105 | $ 7,423,000 |
| 3. Loans cumulative..... | 292 | $29,484,709 | 292 | $29,484,709 | 292 | $29,484,709 |

## JUSTIFICATION OF INCREASES AND DECREASES

(1) A decrease of $6,788,000 for the Resource Conservation and Development Program consisting of:

(a) An increase of $291,000 for the Resource Conservation and Development program for a 1.6 percent general pay raise anticipated for fiscal year 1995.

(b) An increase of $468,000 for the anticipated 2.6 percent increase in nonpay support costs associated with program operations in fiscal year 1995.

(c) A decrease of $859,000 for a reduction in Federal employment costs.

Need for Change. In support of Secretary's streamlining efforts and the President's Executive Order mandating a reduction in Federal employment, SCS is reducing employment in this program from the FY 1993 base by 2.5 percent.

Nature of Change. The consolidation of USDA conservation programs creates considerable opportunities to simplify procedures, streamline operations, expedite services and in the process realize significant savings in staffing and other administrative costs. The proposed USDA field service center concept will consolidate many USDA field offices under one roof and will ensure improved delivery of conservation and farm program assistance. The full integration and sharing of data and information will reduce the potential for duplication of efforts and will allow for greater interchange between county/area committees and conservation districts. Finally, many administrative and financial management functions at both the headquarters and field levels will also be consolidated with those of the Forest Service as part of the Department's overall streamlining efforts.

(d) A decrease of $2,141,000 in technical assistance base program.

Need for Change. This decrease is part of a reduction to meet overall USDA budget and spending targets. SCS has refocused the RC&D program by placing additional emphasis on development of local capability to operate and maintain the RC&D council planning and implementation process and in seeking technical and financial assistance from all Federal, state and local sources.

Nature of Change. The decrease will require the elimination of 34 FTE and will be applied to salaries, benefits and related support costs. In FY 1995, the RC&D program would be reduced by not funding additional areas, not filling vacancies that occur, reassigning employees needed to meet this reduction, and totally eliminating financial assistance. Funding would be distributed for providing either a full or part-time RC&D coordinator and support staff in the currently authorized areas.

(e) A decrease of $4,542,000 in the financial assistance base program.

Need for Change. This decrease is part of a reduction to meet overall USDA budget and spending targets.

Nature of Change. The decrease will eliminate financial assistance funding provided to local sponsors as seed money for project measures that address high priority natural resource problems. These funds are used to install cost-shared conservation measures largely in rural and economically stressed areas.

(f) A decrease of $5,000 in the loan services base program.

Need for Change. This decrease is part of a reduction to meet overall USDA budget and spending targets.

Nature of Change. The decrease will be applied to salaries, benefits, and related support costs for Farmer Home Administration agency personnel servicing existing loans.

Soil Conservation Service
GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS
1993 and Estimated 1994 and 1995
RESOURCE CONSERVATION AND DEVELOPMENT

| | 1993 | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|
| | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS | AMOUNT | STAFF YEARS |
| ALABAMA..... | $1,166,631 | 18 | $1,159,230 | 14 | $850,000 | 12 |
| ALASKA..... | 114,496 | 2 | 121,120 | 2 | 107,000 | 2 |
| ARIZONA..... | 625,844 | 10 | 605,580 | 9 | 534,000 | 8 |
| ARKANSAS..... | 840,997 | 16 | 883,830 | 12 | 636,000 | 10 |
| CALIFORNIA..... | 371,853 | 7 | 490,910 | 8 | 417,000 | 7 |
| COLORADO..... | 742,001 | 15 | 768,910 | 13 | 573,000 | 11 |
| CONNECTICUT.... | 255,507 | 4 | 241,160 | 4 | 213,000 | 3 |
| DELAWARE..... | 123,841 | 2 | 131,370 | 2 | 98,000 | 2 |
| FLORIDA..... | 356,432 | 3 | 413,770 | 2 | 239,000 | 2 |
| GEORGIA..... | 942,479 | 15 | 1,079,490 | 13 | 636,000 | 11 |
| HAWAII..... | 372,001 | 7 | 359,060 | 6 | 317,000 | 5 |
| IDAHO..... | 726,866 | 13 | 768,910 | 12 | 573,000 | 10 |
| ILLINOIS..... | 714,091 | 13 | 726,700 | 13 | 641,000 | 11 |
| INDIANA..... | 734,624 | 13 | 766,900 | 12 | 586,000 | 10 |
| IOWA..... | 857,991 | 17 | 897,060 | 14 | 669,000 | 12 |
| KANSAS..... | 609,993 | 12 | 561,640 | 11 | 495,000 | 9 |
| KENTUCKY..... | 888,279 | 13 | 1,061,400 | 13 | 679,000 | 11 |
| LOUISIANA..... | 471,001 | 8 | 512,610 | 7 | 382,000 | 6 |
| MAINE..... | 605,819 | 10 | 605,580 | 10 | 534,000 | 8 |
| MARYLAND..... | 245,999 | 5 | 242,230 | 5 | 214,000 | 4 |
| MASSACHUSETTS.. | 242,311 | 4 | 231,140 | 3 | 183,000 | 3 |
| MICHIGAN..... | 759,369 | 12 | 802,910 | 9 | 518,000 | 8 |
| MINNESOTA..... | 890,791 | 14 | 768,910 | 10 | 573,000 | 8 |
| MISSISSIPPI.... | 568,069 | 12 | 605,580 | 12 | 534,000 | 10 |
| MISSOURI..... | 716,467 | 14 | 897,060 | 14 | 669,000 | 12 |
| MONTANA..... | 735,004 | 10 | 709,550 | 9 | 626,000 | 8 |
| NEBRASKA..... | 398,001 | 5 | 524,330 | 5 | 363,000 | 4 |
| NEVADA..... | 97,835 | 2 | 134,020 | 2 | 86,000 | 2 |
| NEW HAMPSHIRE.. | 122,998 | 2 | 121,120 | 2 | 107,000 | 2 |
| NEW JERSEY..... | 223,476 | 5 | 250,440 | 5 | 200,000 | 4 |
| NEW MEXICO..... | 929,703 | 14 | 1,036,020 | 13 | 693,000 | 11 |
| NEW YORK..... | 679,437 | 13 | 605,580 | 12 | 534,000 | 10 |
| NORTH CAROLINA. | 857,347 | 13 | 908,780 | 14 | 650,000 | 12 |
| NORTH DAKOTA... | 867,820 | 12 | 1,063,660 | 12 | 662,000 | 10 |
| OHIO..... | 862,002 | 14 | 867,750 | 13 | 716,000 | 11 |
| OKLAHOMA..... | 837,414 | 14 | 1,029,240 | 12 | 651,000 | 10 |
| OREGON..... | 435,956 | 10 | 512,610 | 11 | 382,000 | 9 |
| PACIFIC BASIN.. | 115,500 | 2 | 129,320 | 2 | 94,000 | 2 |
| PENNSYLVANIA... | 689,064 | 12 | 806,430 | 10 | 512,000 | 8 |
| PUERTO RICO.... | 309,675 | 6 | 363,350 | 7 | 321,000 | 6 |
| RHODE ISLAND... | 124,003 | 2 | 121,120 | 2 | 107,000 | 2 |
| SOUTH CAROLINA. | 395,631 | 8 | 497,030 | 8 | 354,000 | 7 |
| SOUTH DAKOTA... | 491,984 | 8 | 484,460 | 8 | 427,000 | 7 |
| TENNESSEE..... | 690,818 | 10 | 728,700 | 7 | 336,000 | 6 |
| TEXAS..... | 1,476,558 | 18 | 1,755,262 | 14 | 782,000 | 12 |
| UTAH..... | 750,535 | 10 | 605,580 | 9 | 534,000 | 8 |
| VERMONT..... | 231,975 | 4 | 242,230 | 4 | 214,000 | 3 |
| VIRGINIA..... | 432,875 | 7 | 452,310 | 7 | 399,000 | 6 |
| WASHINGTON..... | 384,291 | 6 | 533,120 | 6 | 349,000 | 5 |
| WEST VIRGINIA.. | 728,708 | 11 | 792,360 | 10 | 535,000 | 8 |
| WISCONSIN..... | 505,000 | 6 | 501,890 | 5 | 372,000 | 4 |
| WYOMING..... | 504,456 | 9 | 512,610 | 8 | 382,000 | 7 |
| CHESTER NTC.... | 92,909 | 1 | 81,460 | 1 | 72,000 | 1 |
| FORT WORTH NTC. | 274,666 | 5 | 248,660 | 4 | 219,000 | 3 |
| LINCOLN NTC.... | 139,000 | 2 | 122,190 | 2 | 108,000 | 2 |
| PORTLAND NTC... | 90,500 | 1 | 82,530 | 1 | 73,000 | 1 |
| NATIONL HDQTRS. | 1,773,925 | 19 | 2,141,030 | 18 | 1,889,000 | 17 |
| FmHA..... | 60,000 | 2 | 60,000 | 2 | 55,000 | 2 |
| FOREST SERVICE. | 590,661 | 3 | 515,000 | 2 | 483,000 | 2 |
| Total Available or Estimate... | $32,843,479 | 525 | $35,242,802 | 477 | $26,157,000 | 407 |

## Passenger Motor Vehicles

Passenger motor vehicles of the Soil Conservation Service are distributed among 50 State Offices, Puerto Rico and Guam, 230 area offices, and various technical specialists located at field headquarters. None of these vehicles are used in Washington, D.C. Vehicles are used in rural and other areas where common carrier facilities are either non-existent, uneconomical, or inadequate. The nature of the travel requires a high degree of mobility with frequent stops at field offices, job sites, and other place not serviced by common carrier. Resident technicians servicing farmers and ranchers in conservation districts use pickup trucks rather than passenger vehicles.

Passenger motor vehicles are generally assigned to an office location and not exclusively to one individual. This allows several employees to rely on the use of a single vehicle, thus maximizing utilization, and minimizing the number of vehicles needed.

On September 30, 1993, the Soil Conservation Service had 1,800 passenger vehicles in a total fleet of 11,081 vehicles. The fleet includes pickup trucks, light trucks, jeeps, and heavy trucks.

Replacement of Passenger Motor Vehicles. The fiscal year 1995 estimates provide for the replacement of 400 passenger motor vehicles during the fiscal year. The vehicles proposed for replacement have been driven more than 60,000 miles or are more than 6 years of age or would be beyond economic repair due to accident or other causes.

SCS is continuing a sound and effective replacement program. During fiscal year 1993, 300 replacement vehicles were ordered and 121 replacements were received. Economy of operations and expected use factors are taken into consideration as well as prescribed age and mileage standards in planning replacements.

Age and mileage data for Soil Conservation Service passenger motor vehicles on hand September 30, 1993, are as follows:

| AGE DATA | | | MILEAGE DATA | | |
|---|---|---|---|---|---|
| Model | Number of Vehicles | Percent of Total | Lifetime Mileage (Thousands) | Number of Vehicles | Percent of Total |
| 1988 and older | 796 | 44.2 | 80 to over 100 | 257 | 14.3 |
| 1989 | 213 | 11.8 | 60-80 | 388 | 21.6 |
| 1990 | 215 | 12.0 | 40-60 | 432 | 24.0 |
| 1991 | 219 | 12.2 | 20-40 | 341 | 18.9 |
| 1992 | 146 | 8.1 | Under 20 | 382 | 21.2 |
| 1993 | 211 | 11.7 | TOTAL | 1,800 | 100.0 |
| TOTAL | 1,800 | 100.0 | | | |

# RESOURCE CONSERVATION AND DEVELOPMENT

## STATUS OF PROGRAM

The Resource Conservation and Development (RC&D) Program began in February 1964 under authority of Section 102 of the Food and Agriculture Act of 1962 (Public Law 87-703) and other Departmental authorities. These authorities have been replaced by Sections 1528-1538 of the Agriculture and Food Act of 1981 which authorized a program to assist local and State efforts in resource conservation and development. The Food, Agriculture, Conservation and Trade Act of 1990 reauthorizes the program through FY 1995.

Program administration is provided by the Soil Conservation Service (SCS). Assistance is provided to RC&D sponsors as authorized by the Secretary of Agriculture. RC&D sponsors, State and local units of government, and nonprofit organizations initiate and direct the planning process, develop and maintain an RC&D area plan, and carry out activities to implement their area plan.

Department of Agriculture agencies provide technical, financial, and loan assistance to local sponsors. Sponsors also seek the help of local, State, and other Federal agencies and private organizations that can assist them in areawide planning and in carrying out activities to implement plans.

Program Objectives: As stated in the Agriculture and Food Act of 1981, The RC&D program is to encourage and improve the capability of State and local units of government and local nonprofit organizations in rural areas to plan, develop and carry out programs for resource conservation and development. The program also establishes or improves the coordination systems used in rural communities to effectively utilize available Federal, State, and local programs. Each RC&D area has a council made up of local sponsors to develop and implement the priorities needed to conserve and improve the use of land, develop natural resources, and enhance the social, economic, and environmental conditions in their rural area.

Program Operations: The 1990 Food, Agriculture and Trade Act limits assistance to not more than 450 active designated areas. At the present time there are 250 authorized areas, and 62 applications on file for new areas which desire to become involved in the program.

Status of Resource Conservation and Development Program
as of September 30, 1993

| State | Area Applications on Hand | | | Areas Authorized for Assistance | | |
|---|---|---|---|---|---|---|
| | No. | Acres | Counties Involved | No. | Acres | Counties Involved |
| Alabama | -- | -- | -- | 9 | 32,898,231 | 67 |
| Alaska | 3 | 73,984,000 | 4 | 1 | 14,700,000 | 1 |
| Arizona | -- | -- | -- | 5 | 71,448,255 | 15 |
| Arkansas | -- | -- | -- | 7 | 33,314,813 | 75 |
| California | -- | -- | 1 | 4 | 23,360,939 | 17 |
| Caribbean Area | 1 | 520,555 | 4 | 3 | 1,665,883 | 15 |
| Colorado | -- | -- | -- | 6 | 47,180,598 | 43 |
| Connecticut | -- | -- | -- | 2 | 3,127,056 | 8 |
| Delaware | -- | -- | -- | 1 | 1,265,920 | 3 |
| Florida | 1 | 6,202,240 | 9 | 3 | 9,984,630 | 22 |
| Georgia | 2 | 4,867,800 | 23 | 8 | 18,422,956 | 77 |
| Hawaii | -- | -- | -- | 3 | 3,699,685 | 3 |
| Idaho | 2 | 12,005,620 | 10 | 6 | 41,308,242 | 32 |
| Illinois | 2 | 3,573,090 | 12 | 6 | 16,776,983 | 50 |
| Indiana | -- | -- | -- | 6 | 11,971,630 | 48 |
| Iowa | 3 | 5,902,169 | 16 | 7 | 13,849,471 | 40 |
| Kansas | -- | -- | -- | 5 | 13,970,967 | 32 |

Status of Resource Conservation and Development Program
as of September 30, 1993

| State | Area Applications on Hand | | | Areas Authorized for Assistance | | |
|---|---|---|---|---|---|---|
| | No. | Acres | Counties Involved | No. | Acres | Counties Involved |
| Kentucky | 5 | 7,002,163 | 36 | 8 | 16,290,653 | 71 |
| Louisiana | 1 | 3,301,706 | 5 | 4 | 18,082,875 | 41 |
| Maine | -- | -- | -- | 5 | 19,106,313 | 16 |
| Maryland | 1 | 1,706,923 | 5 | 2 | 2,833,579 | 12 |
| Massachusetts | -- | -- | -- | 2 | 3,988,405 | 10 |
| Michigan | 1 | 3,362,600 | 8 | 6 | 28,908,815 | 63 |
| Minnesota | -- | -- | -- | 6 | 32,235,394 | 53 |
| Mississippi | 1 | 3,063,854 | 9 | 5 | 30,020,900 | 81 |
| Missouri | 1 | 2,766,080 | 9 | 7 | 23,969,407 | 57 |
| Montana | 1 | 18,849,492 | 10 | 6 | 59,529,675 | 37 |
| Nebraska | 4 | 12,276,008 | 31 | 4 | 24,017,324 | 33 |
| Nevada | -- | 144,820 | 1/ 1 | 1 | 7,936,647 | 7 |
| New Hampshire | 1 | 2,710,000 | 6 | 1 | 3,161,374 | 4 |
| New Jersey | -- | -- | -- | 2 | 4,416,936 | 17 |
| New Mexico | -- | -- | -- | 8 | 86,782,720 | 33 |
| New York | 2 | 3,023,044 | 9 | 5 | 21,628,608 | 34 |
| North Carolina | 4 | 6,295,896 | 21 | 7 | 13,396,296 | 40 |
| North Dakota | -- | -- | -- | 8 | 44,405,257 | 53 |
| Ohio | 1 | 2,700,000 | 9 | 7 | 20,425,737 | 68 |
| Oklahoma | 1 | 6,976,534 | 8 | 8 | 36,378,176 | 67 |
| Oregon | -- | -- | -- | 4 | 26,837,354 | 21 |
| Pacific Basin | -- | -- | -- | 1 | 896,000 | 2 |
| Pennsylvania | 3 | 5,162,146 | 16 | 6 | 22,121,355 | 46 |
| Rhode Island | -- | -- | -- | 1 | 677,120 | 5 |
| South Carolina | 1 | 1,757,800 | 5 | 4 | 13,501,180 | 31 |
| South Dakota | 2 | 12,305,072 | 8 | 4 | 22,881,906 | 27 |
| Tennessee | 1 | 1,421,100 | 6 | 5 | 10,899,358 | 43 |
| Texas | 11 | 86,348,672 | 111 | 12 | 70,861,163 | 124 |
| Utah | 2 | 9,617,981 | 8 | 5 | 43,611,338 | 21 |
| Vermont | -- | -- | -- | 2 | 6,107,890 | 14 |
| Virginia | 1 | 1,727,051 | 6 | 4 | 7,841,211 | 33 |
| Washington | -- | -- | -- | 4 | 25,653,950 | 13 |
| West Virginia | -- | -- | -- | 6 | 15,477,529 | 55 |
| Wisconsin | -- | -- | -- | 4 | 23,570,598 | 41 |
| Wyoming | 1 | 8,550,400 | 2 | 4 | 55,646,014 | 22 |
| TOTALS | 60 | 308,124,816 | 329 | 250 | 1,203,045,316 | 1,843 |

1/ Part of Idaho application.

For multistate applications and areas in the above table the number is tabulated for the states having leadership. The "Acreage" column reflects actual acreage in each state covered by the applications or areas. The "Counties Involved" column reflects whole and parts of counties in the state in which they are located and not in the state that has leadership.

For states having portions of counties in more than one approved RC&D area, or on file as an application, the "Counties Involved" column reflects no duplication. The typical RC&D area has 17 sponsors including six county governments, seven soil and water conservation districts, two cities, a substate district and one other organization. This group of sponsors operates by having each sponsor designate a representative to serve on the RC&D council. The council, with assistance from the RC&D Coordinator and other agency representatives, carries out the coordinating function to make effective use of all financial and technical resources available in the area.

RC&D area planning focuses on a determination of the area's problems and needs, setting objectives and goals and alleviating these problems through local citizen leadership and participation. The process is concerned with land conservation, water management, community development and other elements such as the protection of fish and wildlife habitat.

The planning process results in the development of an "Area Plan" which contains the objectives and goals established by the council and is used to guide a council's efforts in the future. An annual plan of work also is prepared. Each year, each RC&D council goes through a process of evaluation and redefinition of goals to update their plan of action.

Once the area plan is prepared, councils work on implementing their objectives and goals. Measures (or projects) are developed for the strategies needed to reach goals. Measures are made up of a variety of activities carried out under the leadership of the RC&D council with assistance from Federal, State, and local cooperating agencies. Measures are major undertakings, requiring an extensive effort on the part of the council to complete. By completing a number of related measures a council's goal will be met.

Loans Available: Under the Bankhead-Jones Farm Tenant Act, Public Law 75-210, as amended, loans are made to local organizations for financing the local share of the cost of installing approved RC&D measures in authorized RC&D areas. The Rural Development Administration has been assigned responsibility for making these loans to sponsors of SCS approved projects. Public Law 92-419, approved August 30, 1972, provided for making such loans on an insured basis under the Agricultural Credit Insurance Fund.

These loans may not exceed $500,000 and are repayable in not more than 30 years at an interest rate based on the average rate paid by the U.S. Treasury on obligations of similar maturity. The rate for 1993 was 9.503 percent. As of December 1, 1993, the rate for new borrowers was 9.319 percent. As of September 30, 1993 there were 105 outstanding loans. The present unpaid principal is $7.4 million. The workload in FY 1993 consisted of assisting borrowers and providing loan counseling to help local sponsors arrange funding necessary to implement planned financial assistance measures..

Program Assignments: Administrative leadership for this Program is assigned to the Soil Conservation Service. USDA area planning assistance as well as technical assistance for implementing the plan is provided by the Soil Conservation Service and Forest Service. The Forest Service provides assistance to councils and their resource committees as requested by individual councils. This is accomplished through state forestry agencies. In FY 1993 the Forest Service obligated $590,661 in carrying out measures in 106 RC&D areas. The Extension Service provides arrangements for the State Cooperative Extension Service in selected RC&D areas to provide educational assistance to meet sponsors' special needs. The Farmers Home Administration is responsible for the loan provisions of the Program.

In addition, other USDA agencies and agencies from other departments provide assistance to RC&D sponsors within their existing authorities and programs on an "as needed" basis. State and local units of government and their agencies also participate. Thus, RC&D activities are broader than those created by assistance from this Department alone. An indication of the level of participation by USDA agencies in 1993 is as follows:

| | Technical Assistance | | Financial | |
|---|---|---|---|---|
| | Net Obligations | Staff-Years | Assistance Obligations | Total Net Obligations |
| 1993 Actual: | | | | |
| SCS | $30,144,520 | 520 | $2,048,298 | $32,192,818 |
| RDA (Loan Ser.) | 60,000 | 2 | -- | 60,000 |
| FS | 590,661 | 3 | -- | 590,661 |
| Total | $30,795,181 | 525 | 2,048,298 | 32,843,479 |

## TYPES OF ASSISTANCE FURNISHED BY THE DEPARTMENT TO RC&D AREAS

Technical Assistance: Technical assistance was being provided to 250 active authorized RC&D areas as of September 30, 1993. This assistance is in the form of staff days from USDA agencies, or is donated or purchased from other sources, to carry out the objectives and goals of a council. This includes help in carrying out studies to identify problems, needs, and the importance and availability of natural resources in the area. The SCS and other cooperating USDA agencies provide technical assistance which includes providing soils information, farm market analyses, wood utilization studies, and assistance needed by the sponsors to plan, layout and supervise installation of works of improvement described below in "Financial Assistance." Technical assistance provides for identifying other sources of assistance, determining probable impacts, and advising RC&D sponsors on actions to be taken.

Coordination and cooperation are essential in the planning process. The main form of technical assistance provided by USDA, through the SCS, is an RC&D Coordinator to assist sponsors in coordinating activities in the RC&D area plan.

Financial Assistance: Financial assistance is available, on a limited basis, from SCS to sponsors to implement measures for land conservation, water management, community development and other environmental elements. Sponsors of the measures must provide cost share matching funds. The total technical and financial assistance funds for the Resource Conservation and Development program obligated and equivalent staff-years used in 1993 by State were:

### 1993 RC&D OBLIGATIONS BY STATE

| State | Obligations | Staff Years | State | Obligations | Staff Years |
|---|---|---|---|---|---|
| Alabama | $1,166,631 | 18 | New York | $679,437 | 13 |
| Alaska | 114,496 | 2 | North Carolina | 857,347 | 13 |
| Arizona | 625,844 | 10 | North Dakota | 867,820 | 12 |
| Arkansas | 840,997 | 16 | Ohio | 862,002 | 14 |
| California | 371,853 | 7 | Oklahoma | 837,414 | 14 |
| Caribbean Area | 309,675 | 6 | Oregon | 435,956 | 10 |
| Colorado | 742,001 | 15 | Pacific Basin | 115,500 | 2 |
| Connecticut | 255,507 | 4 | Pennsylvania | 689,064 | 12 |
| Delaware | 123,841 | 2 | Rhode Island | 124,003 | 2 |
| Florida | 356,432 | 3 | South Carolina | 395,631 | 8 |
| Georgia | 942,479 | 15 | South Dakota | 491,984 | 8 |
| Hawaii | 372,001 | 7 | Tennessee | 690,818 | 10 |
| Idaho | 726,866 | 13 | Texas | 1,476,558 | 18 |
| Illinois | 714,091 | 13 | Utah | 750,535 | 10 |
| Indiana | 734,624 | 13 | Vermont | 231,975 | 4 |
| Iowa | 857,991 | 17 | Virginia | 432,875 | 7 |
| Kansas | 609,993 | 12 | Washington | 384,291 | 6 |
| Kentucky | 888,279 | 13 | West Virginia | 728,708 | 11 |
| Louisiana | 471,001 | 8 | Wisconsin | 505,000 | 6 |
| Maine | 605,819 | 10 | Wyoming | 504,456 | 9 |
| Maryland | 245,999 | 5 | National Technical Centers | 597,075 | 9 |
| Massachusetts | 242,311 | 4 | National Hdqtrs | 1,773,925 | 19 |
| Michigan | 759,369 | 12 | Total, Resource Conservation & Development, SCS..... | 32,192,818 | 520 |
| Minnesota | 890,791 | 14 | Allocation Accounts..... | 650,661 | 5 |
| Mississippi | 568,069 | 12 | Total Resource Conservation & Development... | $32,843,479 | 525 |
| Missouri | 716,467 | 14 | | | |
| Montana | 735,004 | 10 | | | |
| Nebraska | 398,001 | 5 | | | |
| Nevada | 97,835 | 2 | | | |
| New Hampshire | 122,998 | 2 | | | |
| New Jersey | 223,476 | 5 | | | |
| New Mexico | 929,703 | 14 | | | |

Loan Services Assistance: Funds are provided to the Rural Development Administration (RDA) to service loans made to sponsors from the Agricultural Credit Insurance Fund. Loan services must be provided from Resource Conservation and Development funds because the Agricultural Credit Insurance Fund of the RDA is not available for such expenses.

## CURRENT PROGRAM STATUS

The RC&D program is responding to management recommendations identified in the program evaluation and councils are placing high priority on the more diversified activities in the area of rural development. It is expected that this emphasis will continue over the next several years.

Program Accomplishments: A total of 1,691 RC&D measures were completed in FY 1993. Of these, 207 were installed with financial assistance provided through the RC&D program, 1,213 with financial assistance from other sources as well as RC&D, and 271 without any financial assistance (only technical RC&D assistance, see table "National Summary of RC&D Measures.")

Selected Examples of Progress:

Completed measures totaled 1,691 in fiscal year 1993. There are certain types of measures that make up the majority of progress during the year. Fire protection is a concern in rural areas of the country and Resource Conservation and Development areas had 118 measures to provide either dry fire hydrants in rural areas or conduct studies regarding the feasibility and location of dry fire hydrants. These measures were accomplished in 20 states. Dry fire hydrants are a pipe that extends into a creek or lake and has threads that match the intake nozzle of a fire truck's pump. If the dry fire hydrants are used as part of a system that allows a fire department to prove to their state's independent insurance rating group that the fire department can deliver water to a fire anywhere in the rating area with the reliability of a city fire hydrant system, the area's fire rating can be reduced and save rural residents money in reduced insurance premiums.

As new technologies are developed and knowledge is gained, there is a need to convey the knowledge and techniques to rural people. During fiscal year 1993 there were another 118 measures in 31 states to conduct workshops and training sessions. These workshops involved such subjects as showing local officials how wooden timber bridges were constructed and maintained, helping loggers learn to work safely in the woods, teaching rural people leadership techniques to make them more effective leaders in their area, teaching farmers new farm technology such as utilizing "no-till" methods of raising crops and many others.

Water resources are an important natural resource as measured by 35 states having 192 Resource Conservation and Development program water resource measures in addition to the dry hydrants mentioned earlier. Forty eight of the measures were studies to determine solutions to problems. Some of the problems involve rehabilitation of irrigation systems, building flood protection measures, developing systems to allow aquaculture enterprises, and concerns about both surface and sub-surface water supplies.

NATIONAL SUMMARY OF RC&D MEASURES AS OF SEPTEMBER 30, 1993

| | ADOPTED | | PLANNED | | COMPLETED | | AMOUNT | |
|---|---|---|---|---|---|---|---|---|
| | FY93 | TO DATE | FY93 | TO DATE | FY93 | TO DATE | FY93 | TO DATE |
| Natural Resource Improvement..... | 235 | 4,326 | 154 | 2,846 | 196 | 2,745 | $12,061 | $ 352,470 |
| Community Improvement. | 489 | 4,675 | 413 | 3,012 | 382 | 2,753 | 35,254 | 704,397 |
| Recreation-Tourism.... | 281 | 3,164 | 192 | 1,839 | 162 | 1,777 | 7,753 | 319,861 |
| Information-Education. | 299 | 2,130 | 228 | 1,711 | 234 | 1,476 | 2,434 | 56,557 |
| Forestry..... | 256 | 2,542 | 194 | 1,800 | 211 | 1,615 | 13,248 | 191,225 |
| Water & Water Quality. | 248 | 3,062 | 179 | 1,785 | 141 | 1,556 | 7,876 | 299,965 |
| Economic Development.. | 248 | 2,102 | 221 | 1,464 | 170 | 1,257 | 27,560 | 350,724 |
| Fish and Wildlife..... | 37 | 656 | 32 | 413 | 30 | 372 | 1,903 | 27,622 |
| Marketing and Merchandizing..... | 46 | 364 | 39 | 268 | 24 | 173 | 1,058 | 6,518 |
| Waste and Waste Utilization..... | 102 | 576 | 57 | 399 | 56 | 336 | 8,757 | 48,967 |
| Other..... | 141 | 17,111 | 56 | 15,567 | 85 | 13,422 | 1,445 | 2,200,651 |
| TOTAL..... | 2,382 | 40,708 | 1,765 | 31,104 | 1,691 | 27,482 | $119,349 | $4,558,957 |